

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,  
SOUTHERN ZONE, CHENNAI**

IN

**APPEAL No. 33 OF 2022 (SZ)**

**IN THE MATTER OF: -**

Meenava Thanthai K.R. Selvaraj Kumar, Meenavar Nala

Sangam

.....Applicant(s)

VERSUS

Union of India & Ors.

.... Respondent(s)

**INDEX**

| <b>S.NO</b> | <b>PARTICULARS</b>   | <b>PAGE NO.</b> |
|-------------|--|-----------------|
| 1.          | Reply Affidavit on behalf of MoEFCC  | 1-3             |
| 2.          | <b>Annexure R1-1</b> a copy of the EC dated 31.03.2022   | 4-15            |
| 3.          | <b>Annexure R1-2</b> Copy of the report of IRO, Chennai on 31.03.2022  | 16-85           |
| 4.          | <b>Annexure R1-3</b> Copy of Minutes of meeting in its 70 <sup>th</sup> and 71 <sup>st</sup> meeting held on 4.12.2023 | 86- 242         |
| 5.          | <b>Annexure R1-4</b> Copy of letter dated 01.02.2024 in Expansion of active pharmaceutical ingredients.                | 243-244         |

Place: Chennai

Dated: 16.02.2024

ME. Sarashwathy  
Advocate for MoEF&CC

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,  
SOUTHERN ZONE, CHENNAI**

IN

**APPEAL No. 33 OF 2022 (SZ)**

**IN THE MATTER OF: -**

Meenava Thanthai K.R. Selvaraj Kumar, Meenavar Nala

Sangam

.....Applicant(s)

VERSUS

Union of India & Ors.

.... Respondent(s)

**REPLY AFFIDAVIT ON BEHALF OF RESPONDENT NO. 1,  
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE**

**MOST RESPECTFULLY SHOWETH: -**

I, E. Arockia Lenin, S/o J. Emanuvel aged about 38 years working as Scientist "D" in Regional office of the Ministry of Environment, Forest & Climate Change, at Chennai, the deponent herein does hereby solemnly affirm and state on oath as under: -

1. That I am duly authorized and competent to swear the present reply affidavit on behalf of Ministry of Environment, Forest and Climate Change (hereinafter referred as MoEFCC).
2. That the contents of the application, unless specifically admitted, are denied to the extent that they are inconsistent with submissions made hereinafter.
3. That the instant reply is being filed by the Answering Respondent without prejudice to his right to file a fuller and more detailed reply at a later stage, if so necessary.
4. That it is submitted that the Applicant in the present Appeal has challenged the Environment Clearance (hereinafter referred to as EC) dated 31.03.2022 granted to M/s Sun Pharmaceutical Industries Ltd (hereinafter referred to as the Project Proponent)

*(Signature)*  
**Dr. E. Arockia Lenin**  
Scientist 'D'  
Government of India  
Regional Office, MoEF&CC  
Shastri Bhawan, Haddows Road,  
Nungambakkam, Chennai - 600 006

5. That it is submitted that the Project Proponent submitted the Proposal No. IA/TN/IND3/248368/2021 for Expansion of APIs Bulk Drug manufacturing unit with production capacity from 25.5 TPM to 134.082 TPM within the Existing Plant located at Sy. No. 90/2, 90/3, 90/4, 99/1, 99/2, 99/3, 99/4, 99/5, 100/1, 100/2a, 100/2b, 100/3, Village Sathammai, Taluka Madurantakam, District Chengalpattu (Formerly Kancheepuram), Tamil Nadu.
6. It is submitted that EC in question in the instant case was granted to the Project Proponent for expansion by the Answering Respondent vide letter IA-J-11011/544/2021-IA-II(I) on 31.03.2022. A copy of the EC dated 31.03.2022 is annexed herewith as **Annexure- R1/1**.
7. That in compliance of the order of the Hon'ble National Green Tribunal the IRO, Chennai conducted inspection of the project site on 19.05.2023, wherein it was reported that PP has not initiated any activity proposed in the environmental clearance dated 31.03.2022. A copy of the report of IRO, Chennai is annexed herewith as **Annexure- R1/2**.
8. That, the Hon'ble National Green Tribunal vide order dated 11.10.2023 in Appeal No. 33 of 2022 in the matter titled Meenava Thanthai K. R. Selvaraj Kumar Meenava Nala Sangam Vs. Union of India directed as follows:
 

*5. Therefore, we call for the report from the MoEF&CC as to what action they have taken to keep the expansion EC granted (which is impugned in this appeal) in abeyance, whether the expansion EC can be sustained and whether the MoEF&CC would revisit the same to either withdraw or keep it in abeyance.*
9. That in compliance of order dated 11.10.2023, the matter was referred to the Expert Appraisal Committee (Industry-III) in its 70<sup>th</sup> and 71<sup>st</sup> meetings held on 4.12.2023 and 29.12.2023 respectively, and the Committee recommended to keep expansion EC dated 31st March 2022 granted to Project Proponent in abeyance until the final judgement of the Hon'ble NGT. A copy of Minutes of meeting is annexed herewith as **Annexure- R1/3**.
10. It is humbly submitted that answering Respondent, under Section 5 of the Environment (Protection) Act, 1986, has decided to keep the EC dated 31.03.2022 granted to M/s Sun Pharmaceutical Industries Ltd in abeyance until the final judgement of the NGT / High Court/ Supreme Court. A copy of letter dated 01.02.2024 is annexed herewith as **Annexure- R1/4**.

*Abhye*

**Dr. E. Arockia Lenin**  
 Scientist 'D'  
 Government of India  
 Regional Office, MoEF&CC  
 Shastri Bhawan, Haddows Road,  
 Nungambakkam, Chennai - 600 006

Dr. E. Arockia Lenin  
 Scientist 'D'  
 Government of India  
 Regional Office, MoEF&CC  
 Shastri Bhawan, Haddows Road,  
 Nungambakkam, Chennai - 600 006

11. That in view of the aforementioned facts and circumstances, it is most humbly prayed that this Hon'ble Tribunal may kindly be pleased to pass such order(s) or direction(s) as the court may deem fit and necessary in the interest of justice.

*Abany*

**DEPONENT**

**Dr. E. Arockia Lenin**  
Scientist 'D'  
Government of India  
Regional Office, MoEF&CC  
Shastri Bhawan, Haddows Road,  
Nungambakkam, Chennai - 600 006

**VERIFICATION**

Verified at Chennai on 15<sup>th</sup> day of February, 2024 that the contents of the above affidavit are correct to my knowledge and belief based on official records and nothing material has been concealed there from.

*Abany*

**DEPONENT**

**Dr. E. Arockia Lenin**  
Scientist 'D'  
Government of India  
Regional Office, MoEF&CC  
Shastri Bhawan, Haddows Road,  
Nungambakkam, Chennai - 600 006

ENVIRONMENTAL  
CLEARANCE

Government of India  
Ministry of Environment, Forest and Climate Change  
(Impact Assessment Division)

To,

The GM  
MS. SUN PHARMACEUTICAL INDUSTRIES LIMITED  
Sun Pharmaceutical Industries Ltd Sathammal Village, Karunkhuzhi Post  
madhuranthagam Taluk, Kanchipuram, Tamil Nadu-603303

**Subject:** Grant of Environmental Clearance (EC) to the proposed Project Activity  
under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC)  
in respect of project submitted to the Ministry vide proposal number  
IA/TN/IND3/248368/2021 dated 08 Feb 2022. The particulars of the environmental  
clearance granted to the project are as below.

- |   |  |
|---|--|
| 1. EC Identification No.                      | EC22A058TN111003   |
| 2. File No.                                   | IA-J-11011/544/2021-IA-II(I)   |
| 3. Project Type                               | New  |
| 4. Category                                   | A  |
| 5. Project/Activity including<br>Schedule No. | 5(f)-API   |
| 6. Name of Project                            | "Proposed expansion of Active<br>Pharmaceutical Ingredients (APIs) Bulk<br>Drug manufacturing within the Existing<br>Plant" of M/s. Sun Pharmaceutical<br>Industries Ltd. Village Sathammai, Taluk<br>Madurantakam, District Chengalpattu<br>(Formerly Kancheepuram), Tamil Nadu |
| 7. Name of Company/Organization               | MS. SUN PHARMACEUTICAL<br>INDUSTRIES LIMITED   |
| 8. Location of Project                        | Tamil Nadu   |
| 9. TOR Date                                   | N/A  |

The project details along with terms and conditions are appended herewith from page  
no 2 onwards.

Date: 31/03/2022

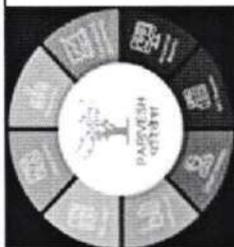
(e-signed)  
Dr. R.B. Lal  
Scientist E  
IA - (Industrial Projects - 3 sector)

*Note: A valid environmental clearance shall be one that has EC identification  
number & E-Sign generated from PARIVESH. Please quote identification  
number in all future correspondence.*

*This is a computer generated cover page.*

PARIVESH

(Pro-Active and Responsive Facilitation by Interactive,  
and Virtuous Environment Single-Window Hub)



By Speed Post/Online

**F. No. IA-J-11011/544/2021-IA-II(I)**  
**Government of India**  
**Ministry of Environment, Forest and Climate Change**  
**(Impact Assessment Division)**

\*\*\*

Indira Paryavaran Bhawan  
 Jorbagh Road, New Delhi - 110003

**Dated: 31<sup>st</sup> March, 2022**

To,

**M/s Sun Pharmaceutical Industries Ltd.,**  
 Village Sathammai, Taluka Madurantakam,  
 District Chengalpattu (Formerly Kancheepuram),  
 Tamil Nadu

Email: joy.ma@sunpharma.com

**Project: Expansion of Active Pharmaceutical Ingredients (APIs) manufacturing unit with production capacity from 25.5 TPM to 134.082 TPM within the Existing Plant located at Sy. No. 90/2, 90/3, 90/4, 99/1, 99/2, 99/3, 99/4, 99/5, 100/1, 100/2a, 100/2b, 100/3, Village Sathammai, Taluka Madurantakam, District Chengalpattu (Formerly Kancheepuram), Tamil Nadu by M/s Sun Pharmaceutical Industries Ltd. - Environmental Clearance regarding.**

Sir,

This has reference to your proposal No. IA/TN/IND3/248368/2021 dated 30<sup>th</sup> December 2021 and further EDS reply dated 8<sup>th</sup> February, 2022 and submitting the PFR & EMP report and further information vide letter dated 8<sup>th</sup> March, 2022 on the above subject matter.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for Environmental Clearance to the project for Expansion of Active Pharmaceutical Ingredients (APIs) manufacturing unit with production capacity from 25.5 TPM to 134.082 TPM within the Existing Plant, located at Sy. No. 90/2, 90/3, 90/4, 99/1, 99/2, 99/3, 99/4, 99/5, 100/1, 100/2a, 100/2b, 100/3, Village Sathammai, Taluka Madurantakam, District Chengalpattu (Formerly Kancheepuram), Tamil Nadu by M/s Sun Pharmaceutical Industries Ltd.

3. The details of products and capacity are as under:

| S. No. | Product Details (complete name) | CAS No.    | Existing Quantity | Proposed Quantity | Total Quantity | Uses                          |
|--------|---------------------------------|------------|-------------------|-------------------|----------------|-------------------------------|
| 1.     | Sodium Valproate                | 1069-66-5  | 8                 | 27                | 35             | Anticonvulsant                |
| 2.     | Oxetacaine                      | 126-27-2   | 1                 | 2.4               | 3.4            | Oral Anaesthetic              |
| 3.     | Clomipramine                    | 303-49-1   | 1                 | 2                 | 3              | Antidepressant                |
| 4.     | Metadoxine                      | 74536-44-0 | 0.4               | 0.6               | 1              | Non-alcoholic Steatohepatitis |

|     |                        |             |     |       |       |   |
|-----|------------------------|-------------|-----|-------|-------|---|
| 5.  | Flurbiprofen           | 5104-49-4   | 1   | 0     | 0     | Nonsteroidal anti-inflammatory agent  |
| 6.  | Analgin Magnesium      | 63372-86-1  | 6   | 0     | 0     | Analgesic   |
| 7.  | Carbamazapine          | 298-46-4    | 4   | 0     | 0     | Anticonvulsant  |
| 8.  | Metoprolol Tartrate    | 56392-17-7  | 3   | 0     | 0     | Beta blockers   |
| 9.  | Tramadol Hydrochloride | 36282-47-0  | 1   | 0     | 0     | opioid analgesics   |
| 10. | Danazol                | 17230-88-5  | 0.1 | 0     | 0     | androgenic hormones   |
| 11. | Magnesium Valproate    | 62959-43-7  | 0   | 10    | 10    | Anticonvulsant.   |
| 12. | Divalproex Sodium      | 76584-70-8  | 0   | 15    | 15    | Anticonvulsant.   |
| 13. | Mephentermine sulphate | 1212-72-2   | 0   | 0.75  | 0.75  | Antihypertensive  |
| 14. | Elagolix sodium        | 832720-36-2 | 0   | 0.02  | 0.02  | Gynaecology (Menstruation disorders)  |
| 15. | Valproic acid          | 1069-66-5   | 0   | 43    | 43    | Anticonvulsant.   |
| 16. | Ranolazine             | 95635-55-5  | 0   | 10    | 10    | Antianginal   |
| 17. | Amisulpride            | 71675-85-9  | 0   | 2     | 2     | Dopamine receptor antagonist; neuroleptic.  |
| 18. | Hydroxychloroquine     | 747-36-4    | 0   | 0.55  | 0.55  | Rheumatoid arthritis  |
| 19. | Carboplatin            | 41575-94-4  | 0   | 0.072 | 0.072 | Various types of cancers.   |
| 20. | Orlistat               | 96829-58-2  | 0   | 2.4   | 2.4   | Therapy of weight loss.   |
| 21. | Isotretinoin           | 4759-48-2   | 0   | 0.18  | 0.18  | Treat severe recalcitrant nodular acne.   |
| 22. | Lumacaftor             | 936727-05-8 | 0   | 0.05  | 0.05  | Treat cystic fibrosis   |
| 23. | Pregabalin             | 148553-50-8 | 0   | 4     | 4     | Analgesic in treatment of peripheral neuropathic pain, Anticonvulsant, Anxiolytic |
| 24. | Dexmethyl Phenidate    | 19262-68-1  | 0   | 0.1   | 0.1   | deficit hyperactivity disorder  |

|    |                     |             |             |               |               |   |
|----|---------------------|-------------|-------------|---------------|---------------|---|
| 25 | Tizanidine          | 64461-82-1  | 0           | 0.25          | 0.25          | skeletal muscle relaxants                                     |
| 26 | Lenalidomide        | 191732-72-6 | 0           | 0.025         | 0.025         | treat various types of cancers                                |
| 27 | Liraglutide         | 204656-20-2 | 0           | 0.25          | 0.25          | control blood sugar levels                                    |
| 28 | Methylphenidate HCL | 298-59-9    | 0           | 0.475         | 0.475         | attention deficit hyperactivity disorder - ADHD               |
| 29 | Lurasidone          | 367514-87-2 | 0           | 0.5           | 0.5           | treat the symptoms of schizophrenia                           |
| 30 | Imatinib            | 220127-57-1 | 0           | 1.9           | 1.9           | treat certain types of leukemia                               |
| 31 | Sunitib             | 341031-54-7 | 0           | 0.04          | 0.04          | Antineoplastics   |
| 32 | Leuprolide          | 74381-53-6  | 0           | 0.1           | 0.1           | Treatment of prostate cancer, endometriosis, uterine fibroids |
| 33 | Semaglutide         | 910463-68-2 | 0           | 0.02          | 0.02          | control blood sugar levels                                    |
| 34 | <b>Total</b>        |             | <b>25.5</b> | <b>123.68</b> | <b>134.82</b> |   |

4. The Project proponent reported that the land area is 64688.76 sq.m. The expansion is proposed within the existing land. The industry has already developed 21992.00 sq.m. (33.99%) green area and an additional 2500 more trees will be developed in area of 4006.00 sq.m. near project site. So overall greenbelt proposed after expansion will be 40.19%. The estimated project cost is Rs. 202.36 Crores including an existing investment of Rs. 174.36 Crores. Total capital cost earmarked towards environmental pollution control measures for proposed expansion is Rs. 149.5 Lakhs and the Recurring cost (operation and maintenance) will be about Rs. 59.97 lakhs per annum. Total Employment will be of 654 persons. Industry proposes to allocate Rs. 33 Lakhs of the proposed cost towards CER.

5. The PP reported that the unit is located at 3.72 km (West) from the Vedanthangal Bird Sanctuary. Wildlife Corridors etc. within 10 km distance from the project site. Project proponent has applied the NBWL clearance vide proposal no. FP/TN/IND/5079/2020 which is under consideration by Wildlife Division. There are no other National Park, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. The Kiliyar River is flowing at a distance of 2.03 km in SSW direction. Palar River is flowing at a distance of 7.52 km in ENE direction.

6. The PP reported that total water requirement after expansion will be 286.5 KLD out of which fresh water will be 182 KLD. Fresh water will be sourced from private tankers. Effluent of 83 KLD will be treated through existing Effluent Treatment Plant of 60 KLD

followed by RO (40 KLD), MEE (80 KLD) and ATFD (22KLD). The plant is based on Zero liquid discharge system.

7. The power requirement after expansion will be 42000 kVA including existing 36000 kVA and will be met from TANGEDCO. Existing unit has DG sets of 1x380 kVA, 1x1500 kVA, 1x1010 kVA, 1x 500 kVA capacities, additionally DG sets are used as standby during power failure. Stack height of 7m for 380 kVA & 500 kVA and 30 m for 1010 kVA & 1500 kVA has been provided as per CPCB norms. Existing unit has 3 TPH (2 Nos.), 6 TPH (1 No.) and 10 TPH (1 No.) coal/wood fired boilers. No additional boiler will be installed. Dust collector with a stack height of 30 m (for 6 TPH boiler) and dust collector followed by bag filter with a stack height of 36 m (for 10 TPH boiler) has been installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm<sup>3</sup>.

8. The Project proponent will comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The Onsite and Offsite Emergency plan will be implemented as cited in the provisions of the Rules.

9. Details of solid waste/hazardous waste disposal and process emissions generation and its management are as per the plan provided in the PFR & EMP report and as deliberated in the EAC.

10. The PP reported that this is old unit and is operating with valid CTO from SPCB before 2006. The unit has obtained CTO compliance from the Tamilnadu Pollution Control Board vide letter dated 07.03.2022. All the conditions were reported complied, however, some suggestion were given to the unit. The PP committed to implement the suggestion given by TNPCB. The EAC deliberated the compliance status and found satisfactory.

11. The Committee was informed that the Ministry has issued an Office Memorandum dated 28.01.2021, which inter-alia request EAC to clearly recommend the permissible pollution load i.e., quantity and quality, including composition of emissions, discharge and solid waste generation. In compliance this OM, PP has submitted the following pollution load information and the EAC deliberated on the issue. PP also requested that EC may include the name of products also otherwise PP will face difficulty in obtaining the CTE/CTO from concerned SPCB.

| Kg Per Day  |                |                        |                      |     |     |        |        |                |                     |                       |              |                      |                   |               |
|-------------|----------------|------------------------|----------------------|-----|-----|--------|--------|----------------|---------------------|-----------------------|--------------|----------------------|-------------------|---------------|
| Water Input | EFFLUENT WATER |                        |                      |     |     |        |        |                | SOLID WASTE         |                       |              |                      |                   |               |
|             | Effluent Water | Inorganics In Effluent | Organics In Effluent | TDS | COD | HTDS   | LTDS   | Total Effluent | Organic Solid waste | Inorganic Solid waste | Spent Carbon | Distillation Residue | Process emissions | Fugitive loss |
| 1,82,000    | 83,000         | 617                    | 475                  | 514 | 528 | 36,500 | 46,500 | 83,000         | 59                  | 72                    | 127          | 9,143                | 927.7             | 66.36         |

#### HAZARDOUS SOLID WASTE DETAILS

| Kg Per Day    |                       |              |                      |
|---------------|-----------------------|--------------|----------------------|
| SOLID WASTE   |                       |              |                      |
| Organic solid | Inorganic solid waste | Spent Carbon | Distillation Residue |
| 59            | 72                    | 127          | 9,143                |

## EMISSION DETAILS

| Kg Per Day        |                    |
|-------------------|--------------------|
| Process emissions | Fugitive emissions |
| 927.7             | 66.36              |

| Kg Per Day                             |            |            |        |           |     |             |          |       |    |  |
|--|------------|------------|--------|-----------|-----|-------------|----------|-------|----|--|
| CO2                                    | H2         | NH3        | O2     | N2        | HBr | HCl         | (CH3)2NH | CH3Cl | HF | SO2                                      |
| 895.7<br>(P) +<br>15 (F)<br>=<br>910.7 | 0.3<br>(P) | 0.3<br>(P) | 14 (F) | 16<br>(F) | 0   | 12.6<br>(P) | 0        | 0     | 0  | 18.6<br>(P) +<br>21.36<br>(F) =<br>39.96 |

12. The proposal was considered by the **Expert Appraisal Committee (Industry-3 Sector) in its 27th meeting held during 7-8 March, 2022**, wherein the project proponent and their consultant [M/s Eco Laboratories and Consultants Pvt. Ltd. having accreditation number NABET/EIA/2023/RA0211 valid till 17.12.2023] presented the PFR/EMP report.

The Committee found the PFR/EMP report and reply of PP satisfactory and recommended the project for grant of environmental clearance. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed at <http://parivesh.nic.in>.

The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with PFR/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the PFR/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the PFR/EMP reports are in order, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The Committee deliberated on the revised water balance data submitted by PP and found it satisfactory. The Committee also deliberated on the action plan and budget allocation for green belt development. As committed by the PP the green belt development shall be completed within one year. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considered 2m x 2m ratio. The Committee deliberated on mitigation of carbon emissions, biofuels and socioeconomic study submitted by PP and found satisfactory. The committee deliberated the status of court case and compliance status of CTO and found the reply of PP satisfactory and reply of PP found to be satisfactory.

The Committee deliberated the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

**13.** The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

**14.** Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-3), Ministry of Environment, Forest and Climate change hereby accords **Environmental clearance to the project for Expansion of Active Pharmaceutical Ingredients (APIs) manufacturing unit with production capacity from 25.5 TPM to 134.082 TPM within the Existing Plant, located at Sy. No. 90/2, 90/3, 90/4, 99/1, 99/2, 99/3, 99/4, 99/5, 100/1, 100/2a, 100/2b, 100/3, Village Sathammai, Taluka Madurantakam, District Chengalpattu (Formerly Kancheepuram), Tamil Nadu by M/s Sun Pharmaceutical Industries Ltd.** under the provisions of the EIA Notification, 2006, subject to the compliance of terms and conditions as under:-

**A. Specific Conditions:**

- (i). **This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble NGT and any other Court of Law, as may be applicable to this project.**
- (ii). **This Environmental Clearance is subject to obtaining the NBWL clearance from the Standing Committee on Wildlife as the Unit is located at 3.72 km (West) from the Vedanthangal Bird Sanctuary.**
- (iii). **The project proponent shall comply with the environment norms for Bulk Drugs (Pharmaceutical) Industry as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 541(E), dated 06.08.2021 under the provisions of the Environment (Protection) Rules, 1986.**
- (iv). The PP shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the PFR/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (v). No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.
- (vi). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

- (vii). All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The Project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.
- (viii). The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.
- (ix). The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.
- (x). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no treated/untreated wastewater shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.
- (xi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xii). The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.
- (xiii). The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xiv). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.
- (xv). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (xvi). The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (xvii). Total fresh water requirement, sourced from private tankers shall not exceed 182 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA and renewed from time to time.

- (xviii). The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
- (xix). The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xx). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m ratio and as committed by PP shall plant 2500 number of trees in first year itself and subsequent years the green belt shall be monitored. The plant species can be selected that will give better carbon sequestration.
- (xxi). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the PFR/EMP report in letter and spirit.
- (xxii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

**B. General Conditions:** The grant of environmental clearance is further subject to compliance of other general conditions as under:-

- (i) No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- (ii) The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.
- (iii) The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
- (iv) The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers,

enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

- (v) The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- (vi) The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- (vii) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- (viii) The project proponent shall also upload/submit six monthly reports on Parivesh Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- (ix) The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Integrated Regional Office of MoEF&CC by e-mail.
- (x) The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at <https://parivesh.nic.in/>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
- (xi) The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
- (xii) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

**15.** The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a

time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

16. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

17. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

18. The above conditions shall be enforced, *inter-alia* under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter

19. This issues with approval of the competent authority.



(Dr. R. B. Lal)

Scientist 'E'/Additional Director

Tele-fax: 011-20819346

Email-rb.lal@nic.in

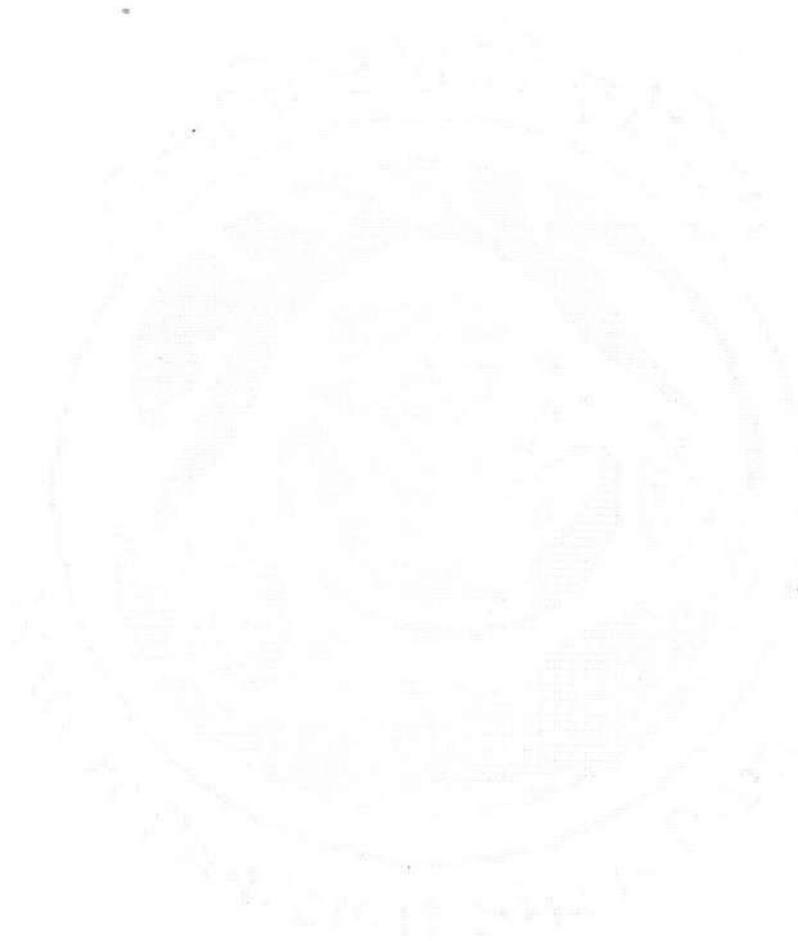
**Copy to: -**

1. Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (SEZ), 1st and IInd Floor, Handloom Export Promotion Council, 34, Cathedral Garden Road, Nungambakkam, Chennai – 34
2. Principal Secretary to Government, Department of Environment, Climate Change and Forests, Government of Tamil Nadu, No. 1, Jeenis Road, Panagal Building, Ground Floor, Saidapet, Chennai-600015
3. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi - 32
4. The Member Secretary, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai - 600 032
5. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi, Delhi 110001
6. The District Collector, District Chengalpattu, Tamil Nadu

7. Guard File/Monitoring File/Website/Record File/Parivesh Portal



**(Dr. R. B. Lal)**  
**Scientist 'E'/Additional Director**  
Tele-fax: 011-20819346  
Email-rb.lal@nic.in



File No. IA-J-11014/30/2023-IA-I (Computer No. 208575)

952512/2023/IA\_I



भारतसरकार

GOVERNMENT OF INDIA

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय

MINISTRY OF ENVIRONMENT, FOREST &amp; CLIMATE CHANGE

Integrated Regional Office (South Eastern Zone),

1<sup>st</sup> Floor, Additional Office Block for GPOA, Shastri Bhawan,

Haddows Road, Nungambakkam, Chennai - 600006



F. No. EP/12.1/2022-23/Misc/2/TN/201

12.06.2023

To

**Shri Munna Kumar Shah**

Scientist 'E'

Impact Assessment Division

Ministry of Environment, Forest &amp; Climate Change

Indira Paryavaran Bhawan, Aliganj

Jor Bagh Road, New Delhi - 110 003

**Subject:** Appeal No. 33 of 2022 in the matter titled Meenava Thanthai K.R. Selvaraj Kumar Meenava Nala Sangam Vs. Union of India pending before the Hon'ble National Green Tribunal, (SZ) Chennai - reg.

Reference No. IA-J-11014/30/2023-IA-I dated 08.05.2023

Sir,

With reference to the above mentioned subject, I am directed to enclose the condition-wise compliance status of the project (Monitoring Report) along with Annexure and photographs for kind perusal and further necessary action please. This has been approved by the DDGF(C) vide diary no.423 dated 05.06.2023.

Yours faithfully,

Encl. As above.

*C. Palpandi*  
12.06.2023  
(Dr. C. Palpandi)  
Scientist 'D'

**GOVERNMENT OF INDIA**  
**Ministry of Environment, Forest & Climate Change**  
**(Integrated Regional Office, Chennai)**

**MONITORING REPORT**

**PART I**

**DATA SHEET**

|   |  |  |
|---|--|--|
| 1 | Project Type :<br>River valley/Mining/Industry/Thermal/<br>Nuclear/Other Specify     | Industry   |
| 2 | Name of the project  | Enhancement of production capacity of Active Pharmaceutical Ingredients (APIs) manufacturing unit from 25.5 TPM to 134.082 TPM within the Existing plant located at Sy. No. 90/2, 90/3, 90/4, 99/1, 99/2, 99/3, 99/4, 99/5, 100/1, 100/2a, 100/2b, 100/3, Village Sathammal, Taluka Madurantakam, District Chengalpattu (Formerly Kancheepuram), Tamil Nadu by M/s Sun Pharmaceutical Industries Ltd. - Environmental Clearance regarding. |
| 3 | Clearance letter(s)/OM No. and dated   | IA-J-11011/544/2021-IA-II (I) dated 31.03.2022   |
| 4 | Locations  |  |
|   | a District (s)   | Chengalpattu   |
|   | b State (s)  | Tamil Nadu   |
|   | c Latitudes  | ---  |
|   | d Longitudes   | ---  |
| 5 | Address of correspondence  |  |
|   | a Address of concerned project Head<br>(with Pin Code & telephone/telex/fax numbers) |  |
| 6 | Salient features   |  |
|   | a of the project   | For enhancement of production capacity of Active Pharmaceutical Ingredients (APIs) manufacturing unit from 25.5 TPM to 134.082 TPM within the Existing Plant.  |
|   | b of the environmental management plans  | <ol style="list-style-type: none"> <li>1. Adequate stack height for proper dispersion of air emissions</li> <li>2. Effluent Treatment Plant</li> <li>3. Green belt development</li> <li>4. Monitoring of environmental parameters (AAQ/Noise/Stack emissions)</li> </ol>   |

|    |  |   |
|----|--|---|
| 7  | Breakup of the project area  |   |
|    | a Submergence area (forest & non-forests)  | Nil   |
|    | b Others   | Nil   |
| 8  | Break up of project affected population with enumeration of those losing houses/dwelling units only, agricultural land only, both dwelling units and agricultural land and landless labourers/artisans | Nil   |
|    | a SC,ST/Adivasis   | Nil   |
|    | b Others   | Nil   |
| 9  | Financial Details  |   |
|    | a Project cost as originally planned and subsequent revised estimates and the years of price reference   | Rs. 202.36 crores (as per EC Existing & Proposed)                     |
|    | b Allocations made for environmental management plans, with item wise and year wise breakup  | Capital cost is Rs. 149.5 lakhs<br>Recurring cost is Rs. 59.97 Lakhs. |
|    | c Benefit cost ratio/internal rate of return and the years of assessment   | Not made available  |
|    | d Whether (c) includes the cost of environmental management as shown in (b) above  | Not included  |
|    | e Total expenditure on the Project so far  | NA (Proposed project activity not started)                            |
|    | f Actual expenditure incurred on the environmental management plans so far   | NA (Proposed project activity not started)                            |
| 10 | Forest land requirement  |   |
|    | a The status of approval for a diversion of forest land for non-forestry use   | NA  |
|    | b The status of compensatory afforestation, if any   | NA  |
|    | c The status of clear felling  | NA  |
|    | d Comments on the viability and sustainability of compensatory afforestation programme in the light of actual field experience so far  | NA  |
| 11 | The status of clear felling in non-forest area (such as submergence area of reservoir, approach road), if any, with quantitative information   | NA  |
| 12 | Status of construction   |   |
|    | a Date of commencement   | Proposed project not started  |
|    | b Date of completion (actual and/or planned)   | NA  |
| 13 | Reasons for the delay if the project is yet to start.  | Awaiting for the NBWL clearance                                       |
| 14 | Date of site visit   |   |
|    | a The dates on which the project was monitored by the Regional Office on previous occasions, if any  | Nil   |

|  |   |            |
|--|---|------------|
|  | b Date of site visit for this monitoring report | 19.05.2023 |
|--|---|------------|

This has the approval of the competent authority vide diary No.423 dated 05.06.2023.

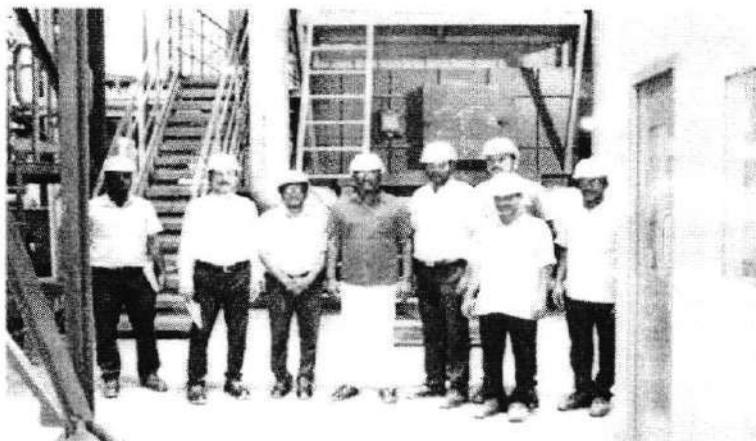
*C. Palpandi*  
(Dr. C. Palpandi)  
Scientist 'D'

### MONITORING REPORT

**Subject: Enhancement of production capacity of Active Pharmaceutical Ingredients (APIs) manufacturing unit from 25.5 TPM to 134.082 TPM within the Existing plant located at Sy. No. 90/2, 90/3, 90/4, 99/1, 99/2, 99/3, 99/4, 99/5, 100/1, 100/2a, 100/2b, 100/3, Village Sathammal, Taluka Madurantakam, District Chengalpattu (Formerly Kancheepuram), Tamil Nadu by M/s Sun Pharmaceutical Industries Ltd. – Environmental Clearance regarding.**

Reference No. IA-J-11011/544/2021-IA-II (I) dated 31.03.2022

Present status of the Project:



The Unit is located at Survey No. 90/2, etc., Sathammai Village, Madurantakam Taluk, Chengalpattu District (Formerly Kancheepuram), Tamil Nadu was started during 1992-93 in the name of M/s Pradeep Exports Ltd. for manufacturing of Frusemide, Analgin and Mebendazole with the capacity of 3, 30 and 5 TPM respectively with necessary Consent to Operate (CTO) from Tamil Nadu Pollution Control Board (TNPCB) (Copy of the CTO enclosed as **Annexure-I**). Thereafter, M/s Pradeep Exports Ltd. merged with M/s Sun Pharma by amalgamation through Hon'ble High Court of Madras on April 2000 through an order passed by Board for Industrial Financial & Reconstruction (BIFR).

*As per the Environment Impact Assessment (EIA) Notification 1994, exemption from obtaining Environmental Clearances, was granted to the existing unit that were already initiated before 1994. The Notification reads as follows: For projects listed in Schedule-I to the notification in respect of which the required land has been acquired and all relevant clearances of the State Government including NOC from the respective State Pollution Control Boards have been obtained before 27<sup>th</sup> January, 1994, a project proponent will not be required to seek environmental clearance from the IAA. However those units who have not as yet commenced production will inform the IAA (Annexure-II).*

Subsequently, as per Circular No.J.11013/41/2000-IA II(1) dated 20.02.2001 on applicability of EIA Notification to product substitution/ change in product mix, the Project Authority has applied for change in products mix in the year 2005 and on the recommendation of TNPCB, a study was conducted through Anna University, Chennai to assess the environmental viability

for the product mix (**Annexure-III**). As there was no change in previously approved waste quantity, Tamil Nadu Pollution Control Board (TNPCB) granted Consent to Establishment (CTE) in the year 2005 and subsequently issued Consent to Operate (CTO) in the year 2006 for manufacturing the following products:

| Production details during the year 2006 |                     | Quantity<br>TPM |
|---|---------------------|-----------------|
| 1                                       | Analgin Magnesium   | 6               |
| 2                                       | Sodium Valproate    | 8               |
| 3                                       | Oxetacaine          | 1               |
| 4                                       | Clomipramine        | 1               |
| 5                                       | Flurbiprofen        | 1               |
| 6                                       | Carbamazepine       | 4               |
| 7                                       | Metoprolol Tartrate | 3               |
| 8                                       | Tramadol HCL        | 1               |
| 9                                       | Metadoxine          | 0.4             |
| 10                                      | Danazol             | 0.1             |

As on date the PA is manufacturing the above said products on market demand basis. The renewal of existing CTO for the above products and operations have been obtained by PA from TNPCB vide approval dated 12.05.2023 under Air vide Proceedings No.T6/TNPCB/F.2821MMN/RL/MMN/A/2023 and Water vide Proceedings No.T6/TNPCB/F.2821MMN/RL/MMN/W/2023, which is valid up to **31.03.2028** (**Annexure-IV**).

Further, the Project Authority (PA) has applied for Environmental Clearance for the "Proposed Change in Product Mix and Enhancement of production capacity from 25.5 TPM to 134.082 TPM within the existing facility" to SEIAA, Tamil Nadu vide letter dated 30.05.2020, under the EIA Notification 2006. *Further, the PA has also submitted an application to State Board for Wildlife (SBWL) for obtain the National Board for Wildlife (NBWL) Clearance vide application No. FP/TN/IND/5079/2020 dated 30.05.2020. However, NBWL application was returned on 15.06.2020 by Wildlife Warden, Chennai due to administrative reasons. The Unit once again submitted the NBWL applications vide letter dated 26.12.2020 and is pending with Wildlife Warden, Chennai.*

In the meantime, a case filed by an NGO before the Hon'ble National Green Tribunal (NGT) (SZ), OA 88/2020 alleging that the Unit is operating without Environmental Clearance and polluting nearby areas. The Hon'ble NGT, SZ in the matter of OA No. 88 of 2020 (SZ) vide order dated 26.06.2020 has constituted a Joint Committee to inspect the unit in question and submit a factual and action taken report. Accordingly, the Joint Committee visited the site on 31.07.2020 and submitted report on 04.11.2020 to the Hon'ble NGT. The Committee is directed to carryout ground water study through reputed institutions such as National Geo Physical Research Institute (NGRI), Central Ground Water Board (CGWB), NEERI, etc within six month. The Industry shall also carry out the remedial measures suggested as per study to improve the ground water quality in and ground the industry premises. *However, the Project Authority was not carried out the ground water study.*

Thereafter, the PA has submitted EC application to the Ministry of Environment, Forest & Climate Change, New Delhi vide letter dated 30.12.2021, as it attracts the general condition and also SEIAA. Tamil Nadu completed its tenure dated 04.11.2021. The EAC recommends to the Unit for grant of Environmental Clearance on 07 & 08.03.2022. The MoEF&CC, New Delhi accorded Environmental Clearance vide letter No. IA-J-11011/544/2021-IA-II (I) dated 31.03.2022 to the above said project for enhancement of production capacity within the existing facility. The details of EC products and capacity are enclosed as **Annexure-V**. The PA has obtained EC for manufacturing of 33 products. Out of which, 10 products were already manufacturing as per Consent to Operate obtained from TNPCB from 2005 onwards. As per the information provided by the PA, the proposed 23 numbers of EC approved products are not manufactured (letter enclosed as **Annexure-V.A**).

Further, the same NGO filed an appeal before Hon'ble NGT (SZ), 33/2022 challenging Environmental Clearance and Hon'ble NGT passed order to maintain status quo to the Unit and case in NGT is under adjudication before Hon'ble NGT (SZ) Chennai.

During the site visit, it was informed by the PA that they have not initiated any activity as proposed in the Environmental Clearance dated 31.03.2022. Also, CTE and CTO for proposed activity have not been obtained from the TNPCB.

*Through GIS based system analysis, distance between Sun Pharma Industry to Vedanthangal Bird Sanctuary Lake is located at 3.72km and Maduranthagam Lake is located at a distance of 3.43km (Google Earth Image is at Annexure-VI).*

*During the visit, it was also observed that the following industries were also located near to the Vedanthangal Bird Sanctuaries.*

| S. No | Name of the Industry                                 | Type of industry        | Industry category as per PCB | Location of industry (from Vedanthangal Sanctuary) Km | Plant Started in the year |
|-------|--|-------------------------|------------------------------|---|---------------------------|
| 1     | M/s Ordain Health Care Global Private Limited.       | Formulation             | Orange Large                 | 3.9   | 2011                      |
| 2     | M/s Arrihant Intermediates (Madras) Private Limited. | Bulk drug intermediates | Red Small                    | 3.86  | 1992                      |
| 3     | M/s Sun Pharmaceutical Industries Ltd.               | Bulk drug               | Red Large                    | 3.72  | 1992                      |
| 4     | M/s Royal Welding Wires Pvt Ltd.                     | Welding wires           | Red Small                    | 3.88  | 1965                      |
| 5     | M/s IM gears   | Engineering             | Orange Large                 | 2.97  | 1995                      |
| 6     | M/s PARK Felts Private Ltd                           | Engineering             |                              | 3.09  | 2008                      |
| 7     | M/s PARK industries Private Ltd.                     | Engineering             |                              | 3.36  | 2008                      |
| 8     | M/s Total Energies Marketing India Private Ltd.      | LPG bottling plant      | Red Large                    | 3.48  | 1993                      |
| 9     | M/s Arrow Coach Builders                             | Automobile              |                              | 3.47  | 2009                      |
| 10    | M/s Sie Chem Technologies Pvt Ltd                    |                         |                              |   |                           |
| 11    | M/s Concorde factory.                                | Textile                 | Red Large                    | 6.92  |                           |
| 12    | M/s British Agro Products India Pvt Ltd              | Mushroom Cultivation    | Green Small                  | 4.84  | 2013                      |

|    |                                   |                            |              |       |      |
|----|-----------------------------------|----------------------------|--------------|-------|------|
| 13 | M/s SNJ Breweries Private Ltd     | Breweries                  | Red Large    | 7.39  | 2009 |
| 14 | M/s IOCL LPG Bottling Plant       | LPG Bottling               | Red Large    | 8.56  |      |
| 15 | M/s SNJ Distilleries              | Distillery                 | Orange Small | 6.30  | 2009 |
| 16 | M/s BalmerLawrie-Van Leer Limited | HDPE drum manufacturing    | Green Large  | 5.88  | 2006 |
| 17 | M/s TNBMWML, Pudur                | Hazardous Waste Processing | Red Small    | 10.4  |      |
| 18 | M/s Zeta Formulation Pvt Ltd      | Formulation                |              | 9.87  |      |
| 19 | M/s Triton Healthcare Pvt Ltd     | Formulation                | Orange Small | 6.74  | 2000 |
| 20 | M/s Anuj Tiles Factory            | Tiles factory              |              | 9.16  |      |
| 21 | M/s Sunglow Life science Pvt Ltd  | Formulation                |              | 15.76 |      |

The Ministry of Environment, Forest and Climate Change, New Delhi vide letter No. IA-J-11014/30/2023-IA-I dated 08.05.2023 requested the Integrated Regional Office (IRO), Chennai to provide condition-wise compliance status of the project with respect to above cite EC and updated factual status and specific inputs on the issues raised in the extant court matter at the earliest.

Accordingly, the above project was monitored on 19.05.2023 along with representative of the Project Authorities. The status of compliance on the stipulated conditions contained in the EC cited above is given below in Part III.

Date of Monitoring: **19.05.2023.**

### **PART-III**

| <b>A. Specific Conditions</b> |   |  |
|-------------------------------|---|--|
| <b>S. No</b>                  | <b>EC Conditions</b>  | <b>Compliance status</b>   |
| i                             | This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble NGT and any other Court of Law, as may be applicable to this project. | <p><b>Refer below.</b></p> <p>A case filed by an NGO before the Hon'ble National Green Tribunal (NGT) (SZ), OA 88/2020 alleging that the Unit is operating without Environmental Clearance and polluting nearby areas.</p> <p>The Hon'ble NGT, SZ in the matter of OA No. 88 of 2020 (SZ) vide order dated 26.06.2020 has constituted a Joint Committee to inspect the unit in</p> |

|  |  |  |
|--|--|--|
|  |  | <p>question and submit a factual and action taken report.</p> <p>Accordingly, the Joint Committee visited the site on 31.07.2020 and made a visit to the Industry and also nearby water bodies, agriculture fields, the Vedanthangal Bird Sanctuary, Maduranthagam lake and collected water/sediment samples from the lake and Sanctuary.</p> <p>The Joint Committee submitted the Inspection Report dated 04.11.2020 to the Hon'ble NGT stated that unit started its production before 1994 and Consent was obtained from the State Pollution Control Board (SPCB) in 1992. As per the EIA Notification, 1994, exemption from obtaining EC, was granted to projects those were already initiated before 1994. The committee also confirmed that the unit has adequate arrangements to control the air pollution and treat the effluent generated through the manufacturing process and apparently there is no reported pollution in the area.</p> <p>The committee further confirmed that Later as per Circular No.J.11013-41/2000-IA,II(I) para 2 dated 20.02.2001 the Unit submitted the Environmental viability study report conducted by Anna University to SPCB and also based on the report SPCB issued CTE to the Unit in 2005, after satisfying that there is no increase in existing pollution load with the new product mix. Subsequently CTO issued to the Unit in the year 2006. The Joint Committee also stated that "There is no core zone and buffer zone demarcations in the Vedanthangal Sanctuary Notification vide G.O.Ms.No.199, E&amp;F Dept dated 03-07-1998. Sanctuary notification includes the water body lake with 29.5 ha area and surrounding 5 km area (private land holdings, villages, town with intense</p> |
|--|--|--|

|    |  |   |
|----|--|---|
|    |  | <p>human activity). The Unit is located at a distance of 3.72 kms from the sanctuary lake and is within the limits of 5 kms zone notified Sanctuary" and Committee is of the opinion that there is no impact of industry operation on the Vedanthangal lake/Bird Sanctuary and no likely threat to the migratory birds.</p> <p>The Committee is also directed to carryout ground water study through reputed institutions such as National Geo Physical Research Institute (NGRI), Central Ground Water Board (CGWB), NEERI, etc within six month. The Industry shall also carry out the remedial measures suggested as per study to improve the ground water quality in and ground the industry premises. <i>However, the Project Authority was not carried out the ground water study.</i></p> <p>After deliberations, the Hon'ble NGT disposed OA 88/2020 and levied Environmental Compensation to the PA vide order dated 29.09.2022. The Project Authority (PA) filed appeal before Hon'ble High Court and the Hon'ble HC has stayed the Hon'ble NGT order vide its order dated 06.12.2022.</p> <p>In the meantime, the Ministry of Environment, Forest and Climate Change accorded Environmental Clearance to the Unit vide letter No.IA-J-11011/544/2021-IA-II(I) dated 31.03.2022. Thereafter, the same NGO filed appeal before Hon'bleNGT (SZ), 33/2022 challenging Environmental Clearance and NGT passed order to maintain status quo to the Unit and case in NGT is under adjudication.</p> <p><b>Copy of interim stay Order is attached as Annexure-VII.</b></p> |
| ii | This Environmental Clearance is subject to obtaining the NBWL clearance from the Standing Committee on Wildlife as | <p><b>Refer below.</b></p> <p>The PA informed that they had applied</p>   |

|     |  |  |
|-----|--|--|
|     | <p>the Unit is located at 3.72 km (West) from the Vedanthangal Bird Sanctuary.</p>   | <p>NBWL clearance vide application No. FP/TN/IND/5079/2020 dated 30.05.2020. However, the application was returned by Wildlife Warden, Chennai on 15.06.2020, due to administrative reasons. The PA once again submitted the application vide letter dated 26.12.2020 and is pending with Wild Life Warden, Chennai.</p> <p>The PA informed that the plant was started its production in 1992 and the Vedanthangal Bird sanctuary was notified in July 1998 and the ESZ guidelines were framed in 2011.</p> <p>The PA submitted the copy of official information posted on TN Forest department website which is available in Public domain, showing Vedanthangal Bird Sanctuary area as 73.06 acres only. Wherein the location of the project is shown at 3.72 Kms from the boundary of the sanctuary which is limited 73.06 acres.</p> <p>The Topographical map no. D44T14 of Survey of India shows that Vedanthangal Bird Sanctuary is only lake.</p> <p>It can be construed that the sanctuary is only the lake and the remaining 5 km is kept as a buffer zone, without clear cut boundary demarcations. This has also not been mentioned in the records of Revenue Dept as well.</p> <p>The PA informed that they had submitted the correct information in FORM I and PFR basis on the available Official documents/Information in the Public Domain.</p> <p><b>Copy of application attached as Annexure-VIII.</b></p> |
| iii | <p>The project proponent shall comply with the environment norms for Bulk Drugs (Pharmaceutical) Industry as notified by the Ministry of Environment, Forest and</p> | <p><b>Agreed to comply.</b></p> <p>It was submitted that this condition is noted and assured to abide by this</p>  |

|    |   |   |
|----|---|---|
|    | Climate Change, vide GSR 541(E), dated 06.08.2021 under the provisions of the Environment (Protection) Rules, 1986.   | condition.  |
| iv | The PP shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the PFR/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. | <b>Refer below.</b><br><br>Environmental Clearance obtained from MoEF&CC vide letter dated 31.03.2022 in which the specific condition mentioned the EC is subject to the NBWL clearance and is also stayed by Hon'ble NGT (SZ) in Appeal No. 33/2022. Unit has already applied and waiting for NOC from NBWL Clearance and the Appeal No. 33/2022 is under adjudication. The PA informed that the expansion activity as per the EC is not yet carried out and same will be implemented after obtaining NBWL clearance and final outcome of the pending case.                        |
| v  | No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.   | <b>Complied.</b><br><br>During the site visit, the PA informed that they are not manufacturing any banned chemicals and also not used any banned raw materials.<br><br>They will adhere to the notification/guidelines of the Government in expansion activities also.  |
| vi | The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.                    | <b>Complied.</b><br><br>The Project Authority informed that the industry has installed four numbers of Wind Mill energy systems with the capacity of 600 Kilo Watts at Theni District, Tamil Nadu which is generating 22.712 Lakhs Kwh /Units of power in the year 2022-23. By this green energy Unit has prevented CO <sub>2</sub> Emission of 43470 Metric Tones by producing 22.712 Lakhs Kwh/ Units of power by wind energy. As a part of green energy Unit has started the usage of bio fuel for the boiler and taken initiation to increase the usage of bio fuel for boiler. |

|     |   |   |
|-----|---|---|
|     |   | <i>However, the PA has not submitted implementation report to the IRO, MoEF&amp;CC, Chennai.</i>  |
| vii | All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The Project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996 | <p><b>Complied.</b></p> <p>The Industry has all necessary precautions to avoid accidents and action plan implemented for avoiding accidents for the existing activities.</p> <p>Safety systems and controls are in place like smoke detectors, water sprinklers, fire alarm, fire extinguisher, fire hydrant, fire tender, Safety Relief Valve, Rupture Disc etc.</p> <p>On-site emergency plan is in place to mitigate any emergency arising out of potential risks posed by the activities/operations carried out within the plant.</p> <p>Mock drill is being conducted on monthly basis.</p> <p>Work Permit system is in place to carry out Hot work, Height Work, Excavation, Vessel Entry, Hazardous pipe line work to avoid accidents and incidents.</p> <p>Safety training imparted for all employees and contract labours.</p> <p>Buildings, Stacker, Hoist &amp; Lift, Centrifuges, Dryers and Lifting tackles certified by External certified person.</p> <p>Periodical Pressure vessel Testing by statutory authority.</p> <p>The rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994 and January, 2000 is being complied.</p> <p>Solid/Hazardous waste is sent to SPCB authorized parties and regularly obtaining renewal for consent and</p> |

|      |  |   |
|------|--|---|
|      |  | <p>authorization from SPCB.</p> <p><b>Copy of Onsite Emergency Plan, Mock drill photos and safety training attendance sheet attached as Annexure-IX.</b></p> <p><b>Fire Hydrant system photo is at Annexure-X.</b></p>  |
| viii | <p>The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.</p> | <p><b>Complied.</b></p> <p>The PA has installed Breather valves on vent of solvent storage tanks in the solvent tank farm for controlling the vapors to open atmosphere.</p> <p>All the raw materials and finished products are stored in closed conditions and hardly there is a chance of fugitive emission. In addition to this VOC emission in terms of handling losses has been reduced by solvents transferring by pumps in close loops.</p> <p>General control measures like routine and regular inspection are carried out to identify and arrest the leakage, preventive and operational maintenance carried out to prevent the leakage.</p> <p>Leak Detection and Repair (LDAR) program conducted on yearly basis for reducing the fugitive emissions into the environment.</p> <p>The PA has installed TVOC analyser in process area and ETP area to monitor the ambient VOC level and the Real Time Data is being transferred to Care Air Centre, TNPCB, Guindy.</p> <p>Monitoring of ambient VOC in and around the plant area is being carried out by TNPCB on yearly basis.</p> |
| ix   | <p>The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.</p>                       | <p><b>Complied.</b></p> <p>The PA has installed upgraded Zero Liquid Discharge (ZLD) system viz.,</p>   |

|   |   |   |
|---|---|---|
|   |   | <p>Solvent Stripper, Multiple Effect Evaporator (MEE), Agitated Thin Film Drier (ATFD) for High COD effluent &amp; ETP Biological treatment system followed by Reverse Osmosis (RO) plant for Low COD effluent.</p> <p>The PA has also installed advanced technology like High Pressure Reverse Osmosis (HPRO) system to reduce water consumption.</p> <p>The treated water from the ZLD facility is recycled for cooling tower make up within the site to reduce consumption of fresh water.</p> <p>The industry has separate Sewage Treatment Plant (40 KLD) and the treated sewage water is re-using to maintain green belt.</p> <p>The Unit has recovered and recycled steam condensate from steam utilized in process equipments and heat exchangers to reduce the fresh water consumption.</p> <p>Unit has explored to recover the HVAC condensate water to reuse for Cooling tower make up to reduce the fresh water consumption.</p> <p>ZLD photo is at <b>Annexure-XI</b>.</p> |
| x | <p>As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no treated/untreated wastewater shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.</p> | <p><b>Complied.</b></p> <p>The PA are segregating effluents in to High COD and Low COD.</p> <p>High COD Effluent is treated through the Zero Liquid Discharge (ZLD) system which consists of Solvent Stripper, Multiple Effect Evaporator and Agitated Thin Film Drier. The Condensate from the MEE is recycled through biological treatment system &amp; RO plant with Activated Sludge process. The Concentrate from the MEE is treated through the ATFD. The free Salt from the ATFD with about 95%</p>  |

|      |   |  |
|------|---|--|
|      |   | <p>moisture is collected and stored in the TSDF Rental Container for sending to secured land filling.</p> <p>Low COD effluent is treated through the Activated Sludge Process and RO plant. The recovered Permeate is taken for Process cooling tower makeup and the reject is taken to MEE for further treatment.</p> <p>The treated water from RO is completely recycled for cooling tower make up within the site to reduce consumption of fresh water.</p> <p><i>Treated industrial effluent is not being used for gardening/green belt development.</i></p> |
| xi   | <p>Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.</p> | <p><b>Complied.</b></p> <p>The PA has installed Continuous online (24x7) Monitoring System at boiler for the measurements of flue gas discharge and pollutants concentrations and the real time data is being transferred to Central Pollution Control Board and State Pollution Control Board server.</p> <p>The PA has also installed the Closed Circuit Camera (CCTV) is PTZ, 360deg rotatable night vision at the Discharge point. It is being continuously monitored by TNPCB and CPCB respectively</p> <p>Boiler Photo is at <b>Annexure-XII.</b></p>      |
| xii  | <p>The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.</p>  | <p><b>Agreed to comply</b></p> <p>The PA informed that minimum inventory of toxic/hazardous raw material is maintained by the Unit for the current activities with complete compliance of MSDS of each Toxic/Hazardous Raw material, in order to ensure zero hazard to the operating team and surroundings.</p>  |
| xiii | <p>The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used</p>  | <p><b>Complied.</b></p> <p>Occupational health centre has been set</p>   |

|     |  |   |
|-----|--|---|
|     | <p>in deploying the duties of the workers. All workers &amp; employees shall be provided with required safety kits/mask for personal protection.</p>   | <p>up in the premises of the Industry.</p> <p>One ambulance is provided especially to the workers. One Doctor and two nurses were engaged.</p> <p>The occupational health surveillance of the workers is being carried out regularly and the records are being maintained as per Factories Act.</p> <p>The Unit has also imparted training to the personnel to use of Personnel Protective Equipment (PPE) like safety shoe, helmet, handgloves, nose mask, goggles etc. PPEs are provided to employees &amp; contractual workers. System is in place for accident prevention, emergency response, emergency preparedness and mitigation.</p> <p><b>Copy of Medical report of employee attached as Annexure-XIII and OHC photo is at Annexure-XIV</b></p> |
| xiv | <p>Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.</p> | <p><b>Complied.</b></p> <p>The PA informed that all employees (permanent &amp; temporary) were trained on safety and health aspects of handling of chemicals. The training calendar and training modules are in place.</p> <p>On job training like tool box talk, safe handling of chemicals, fire drills, static electricity, emergency preparedness are conducted on regular basis.</p> <p>Hazard Identification and Risk Assessment are conducted for major activities and recommendation is implemented.</p>  |
| xv  | <p>The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.</p>  | <p><b>Complied.</b></p> <p>The PA has provided provisions for protection of fire hazard like earthing and bonding system, Nitrogen inertization system, fire suppression system, breather valve with flame arrestor systems, Safety relief valves, rupture disc are in place.</p>   |

|       |  |   |
|-------|--|---|
|       |  | <p>Fire fighting system like fire hydrant ring main system, fire extinguishers, smoke detectors and sprinkler system provided as per the norms.</p> <p>Fire tender provided with fire brigade available on 24X7.</p>  |
| xvi   | <p>The solvent management shall be carried out as follows:</p> <ol style="list-style-type: none"> <li>Reactor shall be connected to chilled brine condenser system.</li> <li>Reactor and solvent handling pump shall have mechanical seals to prevent leakages.</li> <li>Solvents shall be stored in a separate space specified with all safety measures.</li> <li>Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.</li> <li>Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.</li> <li>All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.</li> </ol> | <p><b>Complied.</b></p> <ol style="list-style-type: none"> <li>Chilled brine condenser system are provided for all the storage tanks to minimize vapor losses</li> <li>Mechanical seals provided to reactor and solvent handling pump to prevent the leakages</li> <li>Earthing provided to all electrical equipment, solvent storage tanks and transfer line to prevent static hazard.</li> <li>Proper earthing has been provided to all equipments and regular inspections are done to maintain continuity</li> <li>Flame proof mechanism has been provided and breather valves installed to solvent storage tanks to prevent losses.</li> <li>Solvent storage area provided with fire protection system with auto operated deluge valve and sprinkler system and foam compound.</li> </ol> |
| xvii  | <p>Total fresh water requirement, sourced from private tankers shall not exceed 182 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority CGWA and renewed from time to time.</p>   | <p><b>Agreed to comply.</b></p> <p>As informed by the PA that the source of water is from private tankers At present, the water requirement is 120KLD as informed. The PA has agreed to obtain permission from the Competent Authority.</p>   |
| xviii | <p>The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the</p>   | <p><b>Complied.</b></p> <p>The storm water from the roof top is being channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water is being used for</p>  |

|     |  |  |
|-----|--|--|
|     | premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.   | industrial processes in the unit and Green belt development. No recharge is permitted within the premises. Process effluent/ any wastewater have not allowed mixing with storm water.  |
| xix | <p>The PP shall undertake waste minimization measures as below:</p> <p>a) Metering and control of quantities of active ingredients to minimize waste;</p> <p>b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.</p> <p>c) Use of automated filling to minimize spillage.</p> <p>d) Use of Close Feed system into batch reactors.</p> <p>e) Venting equipment through vapour recovery system.</p> <p>f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.</p>  | <p><b>Complied.</b></p> <p>The Industry has adopted following waste minimization measures:</p> <p>a) All raw materials taken by Metering and Weighing.</p> <p>b) At present no by-products have been produced.</p> <p>c) Use of automated filling to minimize spillage.</p> <p>d) Closed feed system for charging of raw materials into reactors</p> <p>e) Provided double condensers to reactors with RT/Chilled water and brine circulation for vapour recovery system.</p> <p>f) Using pressure hoses for cleaning of equipment to reduce waste water generation.</p> |
| xx  | <p>The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m ratio and as committed by PP shall plant 2500 number of trees in first year itself and subsequent years the green belt shall be monitored. The plant species can be selected that will give better carbon sequestration.</p> | <p><b>Complied.</b></p> <p>Green belt has been developed in an area of 21992 Sq. m which is 33.99 % of the total plot area.</p> <p>The PA also informed thattotal of 1000 numbers of various types of three different trees Gulmohar (<i>Delonixregia</i>), Neem (<i>Azadirachtaindica</i> and Pungam (<i>Pongamiapinnata</i>) and about 1500 numbers of bamboo trees planted around the boundary walls. Treated sewage water is being utilized to maintain the green belt area.</p> <p>As informed, they have followed CPCB guidelines in consultation with local</p>   |

|                              |  |   |
|------------------------------|--|---|
|                              |  | DFO for development of Green belt and survival of the Green belt is good.<br><br><b>Photographs of Green Belt attached as Annexure-XV.</b>  |
| xxi                          | The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the PFR/EMP report in letter and spirit.  | <b>Agreed to comply.</b><br><br>The PA is committed to complete the activities and action plan proposed in the PFR/EMP.   |
| xxii                         | A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.  | <b>Complied.</b><br><br>A dedicated EMC is established, which is headed by Unit Head followed by Environment Engineer and 8 supporting staffs.<br><br>Full-fledged laboratory facility established with all necessary equipment for waste water analysis.<br><br>The Environmental parameters are monitored through INPCB laboratory. |
| <b>B. General Conditions</b> |  |   |
| <b>S. No</b>                 | <b>EC Conditions</b>   | <b>Compliance status</b>  |
| i                            | No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any | <b>Complied.</b><br><br>No further expansion or modifications in the plant were carried out without prior approval of the Ministry of Environment, Forest and Climate Change.   |
| ii                           | The Project proponent shall strictly comply with the rules and guidelines  | <b>Refer below.</b>   |

|     |  |   |
|-----|--|---|
|     | issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.   | <p>The rules and guidelines issued under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts for the existing activities and Unit will continue to comply for the expansion activity. Onsite emergency plan is put in place.</p> <p>Solid/Hazardous waste is sent to SPCB authorized parties and regularly obtaining renewal for consent and authorization from SPCB.</p> |
| iii | The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.   | <p><b>Complied.</b></p> <p>The PA has installed lighting Transformer with the capacity of 100KVA for energy Savings, Lighting – Climatic sensors fixed for proper usage of power.</p> <p>LED lamps introduced in Vessel and Building lighting for reducing power consumption. Usage of Mercury Lamps replaced by LED lamps.</p> <p>Variable Frequency Drives (VFD) fixed for reducing power consumption in continues running pumps in utilities.</p>  |
| iv  | The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time). | <p><b>Complied.</b></p> <p>The unit is maintaining overall noise levels within the standards in and around the plant area.</p> <p>As part of noise controlling measures Silencers and acoustic enclosures are provided for DG sets to control the noise level.</p> <p>Noise suppression measures such as enclosures, buffers and / or protective measures are provided.</p>   |

|   |   |  |
|---|---|--|
|   |   | <p>Earplug/ Ear muffs are provided to workers where exposure is 85 dB (A) or more.</p> <p>Extensive oiling, lubrication and preventive maintenance carried out for the machineries and equipments to reduce noise generation.</p> <p>Dense Green belt Developed and maintained to reduce the noise.</p> <p>Monitoring of ambient noise levels in and around the plant area is being carried out at five locations (MEE plant, Fire Hydrant Water Tank, Occupational Health Centre, Behind Temporary Canteen &amp; Admin Office Building) on yearly basis both day and night through TNPCB laboratory and the values are within the limit.</p> <p><i>However, the frequency of monitoring is inadequate.</i></p> <p><b>Enclosed the report as Annexure – XVIII.</b></p> |
| v | <p>The company shall undertake all relevant measures for improving the socioeconomic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.</p> | <p><b>Complied.</b></p> <p>As part of CSR activities, the industry is working for the community and undertaking projects for healthcare, education and infrastructure development and environment protection.</p> <p>As part of environment, the unit is closely working with the Panchayat-Tamil Nadu Forest Department to create awareness among the school children and community people to avoid plastics and encouraged to use the sustainable material for the better environment condition.</p> <p>The PA has also conducted "Avoid plastic awareness rally" through school children in the rural villages by distributing cotton bags and steel water bottles. It is to encourage them to use the sustainable material.</p>                                    |

|      |  |  |
|------|--|--|
|      |  | <p>The PA has distributed 1litre steel water bottle to 1200 children of seven schools to use it for longer duration and in order to avoid the plastic bottle.</p> <p>The Unit has also done plantation works in the school and issued saplings to the nearby villages. The PA has spent for sanitization facility, education, water and health through CSR. As part of CSR activities, this unit supports the community for their overall development in thematic sectors of Environment, Health &amp; Sanitation, Drinking water, Education and livelihood. Based on these thematic areas, Unit is working in schools, primary health centers, rural villages.</p> <p><b>Copy of CSR photos and appreciation letter attached as Annexure-XVI.</b></p> |
| vi   | <p>The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.</p> | <p><b>Complied.</b></p> <p>Unit has earmarked sufficient funds towards capital cost and recurring costs for implementation of conditions stipulated by the Ministry and spend for environment management/ pollution control measures to sustain.</p> <p>The fund earmarked for environment management/ pollution control measures is not diverted for any other purpose and will continue to comply the same.</p>  |
| vii  | <p>A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.</p>  | <p><b>Agreed to comply</b></p> <p>The PA informed that EC condition will be complied once NOC obtained from the NBWL and EC becomes valid.</p>   |
| viii | <p>The project proponent shall also upload/submit six monthly reports on Parivesh Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the</p>   | <p><b>Refer below.</b></p> <p>The PA has uploaded six monthly compliance report on Parivesh Portal vide letter dated 02.05.2023 instead of due date by December 2022. The next</p>   |

|    |  |  |
|----|--|--|
|    | respective Integrated Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.  | <p>six monthly report was uploaded vide letter dated 04.05.2023.</p> <p>The PA informed that Hon'ble NGT (SZ) passed order to maintain status quo to the Unit for the granted EC and a case in NGT is under adjudication. The PA also stated that the activities approved vide EC dated 31.03.2022 has not been started.</p> |
| ix | The environmental statement for each financial year ending 31 <sup>st</sup> March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Integrated Regional Office of MoEF&CC by e-mail.  | <p><b>Agreed to comply.</b></p> <p>The PA has submitted Form V to the Regional Office, Tamil Nadu Pollution Control Board for the existing activity.</p> <p>However, copy of the FORM-V was not submitted to IRO, MoEF&amp;CC, Chennai.</p> <p><b>Latest copy of environmental statement attached as Annexure-XVII.</b></p>  |
| x  | The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at <a href="https://parivesh.nic.in/">https://parivesh.nic.in/</a> . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry. | <p><b>Refer below.</b></p> <p>Advertisements were not given in two local Newspapers.</p> <p>However, the PA informed that once obtained the NOC from the NBWL for the proposed activity and the court case if finalized, they assured to abide by this condition for the expanded capacity.</p>                              |
| xi | The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.   | <p><b>Agreed to comply.</b></p> <p>Expansion activity as per the EC is not yet implemented.</p> <p>However, the PA has agreed to inform the date of financial closure, final approval of the project by the concerned authorities and the date of start of the project to the IRO, MoEF&amp;CC.</p>                          |

|     |   |   |
|-----|---|---|
|     |   | Chennai.  |
| xii | This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project. | <b>Agreed to comply.</b><br>It was submitted that this condition is noted and assured to abide by this condition. |

This has the approval of the competent authority vide diary No.423 dated 05.06.2023.

*C. Palpandi*  
(Dr. C. Palpandi)  
Scientist 'D'



# TAMIL NADU POLLUTION CONTROL BOARD, MADRAS

CONSENT ORDER No. 5219

DATED: 7.4.92

Proceedings No. T1/CBT-MGR (S)/F-2057/A

DATED: 7.4.92

Consent for Existing/New operation of the plant under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended.

Sub: TAMIL NADU POLLUTION CONTROL BOARD - CONSENT -  
MESSRS.

Pradeep Exports,  
R.S.No.90/3, 90/4, 99/1, 99/3, 99/4, 99/5,  
100/1, 100/2 A, 100/2B, 100/3,  
Sathamai,  
Maduranthagam Taluk,  
Chengalpattu-MGR District.

for the existing/new operation of the plant under Section 21 of the Air  
(Prevention and Control of Pollution) Act, 1981 as amended.

Ref: 1. Your Application No. 20462 dt.9.1.92

2. I.R.No. DEE/CA(S)/F-112-10/W&A/ dt.24.1.92

Board Resolution No. 117 - 225

Dated: 6.3.92

CONSENT is hereby granted under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 (Central Act 14 of 1981) as amended (hereinafter referred to as "The Act") and the rules and orders made thereunder to

The Managing Director,  
M/s. Pradeep Exports,  
R.S.No.90/3, 90/4, 99/1, 99/3, 99/4, 99/5,  
100/1, 100/2A, 100/2B, 100/3,  
Sathamai,  
Maduranthagam Taluk,  
Chengalpattu-MGR District.

(hereinafter referred to as "The Applicant") authorizing him/her/them to operate his/her/their industrial plant in the Air Pollution Control Area as notified by the Government and to continue to make existing discharge of emissions/make new discharge of emissions from the stacks/chimneys.

This is subject to the provisions of the Act and the rules and orders made thereunder and further subject to the terms and conditions incorporated in the Special and General Conditions annexed.

This CONSENT is valid for a period ending with the 31st day of March 1993.

Thirty First, March, Nineteen Ninety three.

for

CHAIRMAN

Tamil Nadu Pollution Control Board  
Madras

BY  
/s/

W. O. P.  
By Registered Post with  
Acknowledgement Due  
(This document contains 12 pages)



TAMIL NADU POLLUTION CONTROL BOARD, MADHAV

CONSENT ORDER NO. 2050

DATED: 7.4.22

Proceedings No. IA/JPT-11014/30-2023/W

DATED: 7.4.22

Consent for Existing/new permitted-outlet/discharge of sewage and/or trade effluent under Section 25/26 of the Water (Prevention and Control of Pollution) Act, 1974 as amended

Sub: TAMIL NADU POLLUTION CONTROL BOARD - CONSENT -  
MISCELL

Pradeep Exports  
R.S.No. 90/3, 90/4, 99/1, 99/2, 99/3, 99/5, 100/1,  
100/2A, 100/2B, 100/3  
Sathnadi  
Madhavathangam Taluk  
Chengalpattu M.R. District.

for the discharge of sewage and/or trade effluent under Section 25/26  
of the Water (Prevention and Control of Pollution) Act 1974 (Central  
Act 6 of 1974) as amended

Ref: Your Application No. 20502 dated 9.1.22

2.I.A. 20507/3(6)/2-112 10/06/2022 dated 24.1.22.

2022/Board Resolution No. 117 dt. 22

Date: 6.3.22

CONSENT is hereby granted under Section 25 of the Water (Prevention and Control  
of Pollution) Act, 1974 (Central Act 6 of 1974) as amended (hereinafter referred to as  
"The Act") and the rules and orders made thereunder to

The Managing Director  
M/s. Pradeep Exports  
R.S.No. 90/3, 90/4, 99/1, 99/2, 99/3, 99/5, 100/1, 100/2A, 99/5  
100/2B, 100/3  
Sathnadi  
Madhavathangam Taluk  
Chengalpattu M.R. District.

(hereinafter referred to as "The Applicant") authorizing the licensee to conduct/continue  
into make new discharge or discharge of effluent for discharge of sewage and/or trade effluent

This is subject to the provisions of the Act and the rules and orders made thereunder and  
further subject to the terms and conditions incorporated in the Special and General Conditions  
annexed.

This CONSENT is valid for a period ending with the 31st day of March, 1993.

(Official stamp and signature of the Managing Director)

Managing Director  
Tamil Nadu Pollution Control Board  
Madhav

952512/2023/IA\_I

7  
 The Managing Director  
 M/s. Pradeep Exports  
 (A unit of M/s. Pradeep Bag Co. Ltd.)  
 268, Lloyds Road  
 Madras - 600 014.

Copy to: The District Environmental Engineer, Tamil Nadu Pollution Control Board,  
 Tambaram  
 for information and necessary action

Copy to: The Senior Environmental Engineer, Tamil Nadu Pollution Control Board,  
 Madras Region.

Copy to: The Commissioner/Executive Engineer  
 Maduravathi Nagar  
 Maduravathi Nagar  
 Chengalpattu IIR District.

Sign

3

SPECIAL CONDITIONS1. Details of the Products Manufactured.

| S.No.<br>(1) | Description<br>(2) | Quantity/Month<br>(3) |
|--------------|--------------------|-----------------------|
| 1.           | Paracetamol        | 3.0 T.                |
| 2.           | Analgin            | 30.0 T.               |
| 3.           | Phenol             | 3.0 T.                |

This consent is valid for the manufacture of products and rate of production mentioned above. Any change in the quantity or quality of the products has to be brought to the notice of the Board and fresh consent has to be obtained.

2. Discharge of effluent is permitted from the following outlets. The quantity of effluent discharged shall not exceed the figures mentioned below.

| Outlet Number.<br>(1) | Description of Outlet<br>(2) | Maximum daily Discharge<br>(in litres/day)<br>(3) | Point of Disposal<br>(4) |
|-----------------------|------------------------------|---|--------------------------|
| 1.                    | Sewage                       | 6000  | On Industry's land.      |
| 2.                    | Trade effluent               | 48500   | Inland surface water.    |
| 3.                    |                              |   |                          |
| 4.                    |                              |   |                          |
| 5.                    |                              |   |                          |
| 6.                    |                              |   |                          |
| 7.                    |                              |   |                          |





INDIA

**THE ENVIRONMENTAL IMPACT  
ASSESSMENT NOTIFICATION, 1994**

(As amended on 4-5-94)

Government of India  
Ministry of Environment & Forests  
New Delhi

**MINISTRY OF ENVIRONMENT & FORESTS****NOTIFICATION****ON****Environmental Impact Assessment of Development Projects**

New Delhi, the 27th January, 1994.

( as amended on 04/05/1994 )

1. S.O.60(E) Whereas a notification under clause (a) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986 inviting objections from the public within sixty days from the date of publication of the said notification, against the intention of the Central Government to impose restrictions and prohibitions on the expansion and modernization of any activity or new projects being undertaken in any part of India unless environmental clearance has been accorded by the Central Government or the State Government in accordance with the procedure specified in that notification was published as S.O. No. 80(E) dated 28th January, 1993,

And whereas all objections received have been duly considered;

Now, therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby directs that on

and from the date of publication of this notification in the Official Gazette expansion or modernization of any activity (if pollution load is to exceed the existing one) or a new project listed in Schedule I of this notification shall not be undertaken in any part of India unless it has been accorded environmental clearance by the Central Government in accordance with the procedure hereinafter specified in this notification.

2. Requirements and procedure for seeking environmental clearance of projects:

- I.(a) Any person who desires to undertake any new project or the expansion or modernisation of any existing industry or project listed in Schedule I shall submit an application to the Secretary, Ministry of Environment and Forests, New Delhi.

The application shall be made in the proforma specified in Schedule II of this notification and shall be accompanied by a project report which shall, inter alia, include an Environmental Impact Assessment Report/Environment Management Plan prepared in accordance with the guidelines issued by the Central Government in the Ministry of Environment and Forests from time to time.

- (b) Cases rejected due to submission of insufficient or inadequate data and plans may be reviewed as and when submitted with complete data and plans. Submission of incomplete data or plans for the second time would itself be a sufficient reason for the Impact Assessment Agency to reject the case summarily.

II. In case of the following site specific projects:

- (a) mining;
- (b) pit-head thermal power stations;
- (c) hydro-power, major irrigation projects and/or their combination.

including flood control;

- (d) ports and harbours (excluding minor ports);
- (e) prospecting and exploration of major minerals in areas above 500 ha.,

The project authorities will intimate the location of the project site to the Central Government in the Ministry of Environment and Forests while initiating any investigation and surveys. The Central Government in the Ministry of Environment and Forests will convey a decision regarding suitability or otherwise of the proposed site within a maximum period of thirty days. The said site clearance shall be granted for a sanctioned capacity and shall be valid for a period of five years for commencing the construction, operation or mining.

- III.(a) The reports submitted with the application shall be evaluated and assessed by the Impact Assessment Agency, and if deemed necessary it may consult a Committee of Experts, having a composition as specified in Schedule-III of this Notification. The Impact Assessment Agency (IAA) would be the Union Ministry of Environment and Forests. The Committee of Experts mentioned above shall be constituted by the IAA or such other body under the Central Government authorised by the IAA in this regard.
- (b) The said Committee of Experts shall have full right of entry and inspection of the site or, as the case may be, factory premises at any time prior to, during or after the commencement of the operations relating to the project.
- (c) The Impact Assessment Agency shall prepare a set of recommendations based on technical assessment of documents and data, furnished by the project authorities, supplemented by data collected during visits to sites or factories, if undertaken, and interaction with affected population and

environmental groups, if necessary. Summary of the reports, the recommendation and the conditions, subject to which environmental clearance is given, shall be made available subject to the public interest to the concerned parties or environmental groups on request. Comments of the public may be solicited, if so decided by Impact Assessment Agency, within thirty days of receipt of proposal, in public hearings arranged for the purpose after giving thirty days notice of such hearings in at least two newspapers. Public shall be provided access, subject to the public interest, to the summary of the reports/ Environmental Management Plans at the Headquarters of the Impact Assessment Agency.

The assessment shall be completed within a period of ninety days from receipt of the requisite documents and data from the project authorities and completion of public hearing, where required, and decision conveyed within thirty days thereafter.

The clearance granted shall be valid for a period of five years for commencement of the construction or operation.

No construction work, preliminary or otherwise, relating to the setting up of the project may be undertaken till the environmental and/or site clearance is obtained.

- IV. In order to enable the Impact Assessment Agency to monitor effectively the implementation of the recommendations and conditions subject to which the environmental clearance has been given, the project authorities concerned shall submit a half-yearly report to the Impact Assessment Agency. Subject to the public interest, the Impact Assessment Agency, shall make compliance reports publicly available.
- V. If no comments from the Impact Assessment Agency are received within the time limit, the project would be deemed to have been approved as proposed by project authorities.

3. Nothing contained in this Notification shall apply to:
- (a) any item falling under entry nos. 3,18 and 20 of the Schedule-I to be located or proposed to be located in the areas covered by the Notifications S.O. No. 102(E) dated 1st February, 1989; S.O. 114(E) dated 20th February, 1991 S.O. No. 416(E) dated 20th June, 1991 and S.O. No. 319(E) dated 7th May, 1992.
  - (b) any item falling under entry Nos. 1,2,3,4,5,7,9,10,12,13,14,16,17,19,21,25 and 27 of Schedule-I if the investment is less than Rs. 50 crores.
  - (c) any item reserved for Small Scale Industrial sector with investments less than Rs. 1 crore.
4. Concealing factual data or submission of false, misleading data/reports, decisions or recommendations would lead to the project being rejected. Approval, if granted earlier on the basis of false data would also be to be revoked. Misleading and wrong information will cover the following:
- False information.
  - False data.
  - Engineered reports.
  - Concealing of factual data.
  - False recommendations or decisions.

( No. Z-12013/4/89-IA-I)

R. RAJAMANI, Secy.

**SCHEDULE -I**  
(See paras 1 and 2)

**LIST OF PROJECTS REQUIRING ENVIRONMENTAL  
CLEARANCE  
FROM THE CENTRAL GOVERNMENT**

1. Nuclear Power and related projects such as Heavy Water Plants, nuclear fuel complex, rare earths.
2. River Valley projects including hydel power, major irrigation and their combination including flood control.
3. Ports, Harbours, Airports (except minor ports and harbours).
4. Petroleum Refineries including crude and product pipelines.
5. Chemical Fertilizers (Nitrogenous and Phosphatic other than single superphosphate).
6. Pesticides (Technical).
7. Petrochemical complexes (Both Olefinic and Aromatic) and Petro-chemical intermediates such as DMT, Caprolactam, LAB etc. and production of basic plastics such as LDPE, HDPE, PP, PVC.
8. Bulk drugs and pharmaceuticals.
9. Exploration for oil and gas and their production, transportation and storage.

10. Synthetic Rubber.
11. Asbestos and Asbestos products.
12. Hydrocyanic acid and its derivatives.
- 13.(a) Primary metallurgical industries (such as production of Iron and Steel, Aluminium, Copper, Zinc, Lead and Ferro Alloys).  
  
(b) Electric arc furnaces (Mini Steel Plants).
14. Chlor-alkali industry.
15. Integrated paint complex including manufacture of resins and basic raw materials required in the manufacture of paints.
16. Viscose Staple fibre and filament yarn.
17. Storage batteries integrated with manufacture of oxides of lead and lead antimony alloy.
18. All tourism projects between 200m--500 meters of High Tide Line or at locations with an elevation of more than 1000 meters with investment of more than Rs. 5 crores.
19. Thermal Power plants.
20. Mining projects (major minerals) with leases more than 5 hectares.
21. Highway Projects.
22. Tarred Roads in Himalayas and/or Forest areas.
23. Distilleries.
24. Raw Skins and Hides.

25. Pulp, paper and newsprint.
26. Dyes.
27. Cement.
28. Foundries (individual).
29. Electroplating.

**SCHEDULE -II**

(See Sub-para I(a) of Para 2)

**APPLICATION FORM**

1. (a) Name and Address of the project proposed:
  - (b) Location of the project:
    - Name of the place:
    - District, Tehsil:
    - Latitude/Longitude:
    - Nearest Airport/Railway Station:
  - (c) Alternate sites examined and the reasons for selecting the proposed site:
  - (d) Does the site conform to stipulated land use as per local land use plan:
2. Objectives of the project:
3. (a) Land Requirement:
  - Agriculture Land:
  - Forest land and Density of vegetation:
  - Other (specify):
  - (b) (i) Land use in the Catchment/within 10 kms. radius of the proposed site:
  - (ii) Topography of the area indicating gradient, aspects and altitude:
  - (iii) Erodability classification of the proposed land:
- (c) Pollution sources existing in 10 km. radius and their impact on quality of air, water & land:
- (d) Distance of the nearest National Park/Sanctuary Biosphere

Reserve/Monuments/heritage site/Reserve Forest:

- (e) Rehabilitation plan for quarries/borrow areas:
- (f) Green belt plan:
- (g) Compensatory afforestation plan:

4. Climate and Air Quality:

- (a) Windrose at site;
- (b) Max./Min./Mean annual temperature
- (c) Frequency of inversion:
- (d) Frequency of cyclones/tornadoes/cloud burst:
- (e) Ambient air quality data:
- (f) Nature & concentration of emission of SPM, Gas (CO, CO<sub>2</sub>, NO<sub>x</sub>, CH<sub>n</sub> etc.) from the project.

5. Water balance:

- (a) Water balance at site:
- (b) Lean season water availability:
- (c) Source to be tapped with competing users (River, Lake, Ground, Public supply):
- (d) Water quality:
- (e) Changes observed in quality and quantity of ground water in the last 15 years and present charging and extraction details:
- (f) (i) Quantum of waste water to be released with treatment details:
- (ii) Quantum of quality of water in the receiving body before and after disposal of solid waste:
- (iii) Quantum of waste water to be released on land and type of land:

(g) (I) Details of reservoir water quality with necessary Catchment Treatment Plan;

(II) Command Area Development Plan;

6. Solid wastes :
  - (a) Nature and quantity of solid wastes generated.
  - (b) Solid waste disposal method:
7. Noise and Vibrations:
  - (a) Sources of noise and vibrations;
  - (b) Ambient noise level;
  - (c) Noise and Vibration control measures proposed;
  - (d) Subsidence problem if any with control measures:
8. Power requirement indicating source of supply: Complete environmental details to be furnished separately, if captive power unit proposed:
9. Peak labour force to be deployed giving details of:
  - Endemic health problems in the area due to waste water/air/soil borne diseases:
  - Health care system existing and proposed:
10. (a) Number of village and population to be displaced:  
(b) Rehabilitation Master Plan:
11. Risk Assessment Report and Disaster Management Plan:
12. (a) Environmental Impact Assessment ) Report prepared as per  
(b) Environment Management Plan: ) guidelines of MOEF  
(c) Detailed Feasibility Report: ) issued from time to time  
(d) Duly filled in questionnaire )

**13. Details of Environmental Management Cell:**

I hereby give an undertaking that the data and information given above are true to the best of my knowledge and belief and I am aware that if any part of the data/information submitted is found to be false or misleading at any stage, the project be rejected and the clearance given, if any, to the project is likely to be revoked at our risk and cost.

Signature of the applicant  
with name and full address

Date:  
Place:

Given under the seal of  
organisation on behalf of  
whom the applicant is signing

In respect to item for which data are not required or is not available as per the declaration of project proponent, the project would be considered on that basis.

**SCHEDULE III**

( See sub-para III(a) of Para 2)

**COMPOSITION OF THE EXPERT COMMITTEES FOR ENVIRONMENTAL IMPACT ASSESSMENT**

1. The Committees will consist of experts in the following disciplines:
  - (I) Eco-System Management
  - (II) Air/Water Pollution Control
  - (III) Water Resource Management
  - (IV) Flora/Fauna Conservation and Management
  - (V) Land Use Planning
  - (VI) Social Sciences/Rehabilitation
  - (VII) Project Appraisal
  - (VIII) Ecology
  - (IX) Environmental Health
  - (X) Subject Area Specialists.
  - (XI) Representatives of NGOs/Persons Concerned With Environmental Issues.
2. The Chairman will be an outstanding and experienced ecologist or environmentalist or technical professional with wide

managerial experience.

3. The representative of IAA will act as Member - Secretary.
4. Chairman and members will serve in their individual capacities except those specifically nominated as representatives:
5. The membership of a Committee shall not exceed 15.

**EXPLANATORY NOTE REGARDING THE IMPACT  
ASSESSMENT NOTIFICATION  
DATED 27TH JANUARY, 1994**

**1. Expansion and modernisation of existing projects**

A project proponent is required to seek environmental clearance for a proposed expansion/modernisation activity if the resultant pollution load is to exceed the existing levels. The words "pollution Load" will in this context cover emissions, liquid effluents and solid or semi-solid wastes generated. A project proponent may approach the concerned State Pollution Control Board (SPCB) for certifying whether the proposed modernisation/expansion activity as listed in Schedule-I to the notification is likely to exceed the existing pollution load or not. If it is certified that no increase is likely to occur in the existing pollution load due to the proposed expansion or modernisation, the project proponent will not be required to seek environmental clearance, but a copy of such certificate issued by the SPCB will have to be submitted to the Impact Assessment Agency (IAA) for information. The IAA will however, reserve the right to review such cases in the public interest if material facts justifying the need for such review come to light.

**2. Availability of Summary Feasibility Report, EIA/EMP Report etc. to concerned parties or groups**

The project proponent will have to submit an executive summary incorporating in brief the essence of project details and findings of environmental impact assessment study which could be made available to concerned parties or environmental groups on request.

**3. Clarification about concerned parties or environmental groups**

The concerned parties or environmental groups will be the bonafide residents located at or around the project site or

site of displacement or site of alleged adverse environmental impact.

#### 4. **Public Hearing**

Public hearings could be called for in case of projects involving large displacement or having severe environmental ramifications.

#### 5. **Requisite information required for site clearance/project clearance.**

##### (a) **Site Clearance:**

Site clearance will be given for site specific projects as mentioned in para-2(ii) of the notification. Project proponents will be required to furnish information according to the environmental appraisal questionnaires for site clearance, as may be prescribed by the IAA from time to time. Additional information whenever required by the IAA will be communicated immediately to the project proponents who will then be required to furnish the same within the time frame specified:

##### (b) **Project clearance:**

In addition to the application form as mentioned in Schedule II to the notification, project proponents are required to furnish the following information for environmental appraisal:

##### (i) **EIA/EMP report (20 copies);**

##### (ii) **Risk Analysis report (20 copies):** however, such reports if normally not required for a particular category of project, project proponents can state so accordingly, but the IAA's decision in this regard will be final;

##### (iii) **NOC from the State Pollution Control Board;**

- (iv) Commitment regarding availability of water and electricity from the competent authority;
- (v) Summary of Project report/feasibility report (one copy);
- (vi) Filled in questionnaire (as prescribed by the IAA from time to time) for environmental appraisal of the project;
- (vii) Comprehensive rehabilitation plan, if more than 1000 people are likely to be displaced, otherwise a summary plan would be adequate.

As a Comprehensive EIA report will normally take at least one year for its preparation, project proponents may furnish Rapid EIA report to the IAA based on one season data (other than monsoon), for examination of the project. Comprehensive EIA report may be submitted later, if so asked for by the IAA.

The requirement of EIA can be dispensed with by the IAA, in case of project which are unlikely to cause significant impacts on the environment. In such cases, project proponent will have to furnish full justification for such exemption, for submission of EIA. Where such exemption is granted, project proponents may be asked to furnish such additional information as may be required.

#### 6. Submission of Insufficient or inadequate data

Regarding cases liable to be rejected due to inadequacy of data, it is clarified that the IAA will make such rejection within 30 days from the date of submission of the proposal. While rejecting a proposal due to insufficient or inadequate data after the first evaluation, the IAA may also stipulate additional requirement of information/clarification for impact assessment purposes if deemed essential due to the specific nature of location of the proposed project whose data as prescribed is

not available, the IAA can examine the project on the basis of available data.

## 7. Application Form

(i) In order to remove any hardship to the project proponent in providing any information, the project proponent may, where some information is not available or would cause inordinate delay, mention this in their application form. The IAA may consider the project proposal based on the information available.

### (ii) Quality and quantity of ground water

If 15 years data on the quantity and quality variation of ground water is not available with the concerned Department or Authorities, the project proponent may mention this accordingly in the application form prescribed in Schedule-II to the notification. Further, in case of projects, where ground water is not to be used, and effluents are not to be discharged on the land, the requirement of ground water variation data for the previous 15 years will be dispensed with.

(iii) A project proponent may write the words "Not Applicable" while filling the application form as mentioned in Schedule-II to the notification in respect of items which are not relevant for the purposes of the proposed project.

## 8. Exemption for projects already initiated

For projects listed in Schedule-I to the notification in respect of which the required land has been acquired and all relevant clearances of the State Government including NOC from the respective State Pollution Control Boards have been obtained before 27th January, 1994, a project proponent will not be required to seek environmental clearance from the IAA. However those units who have not as yet commenced production will inform the IAA.

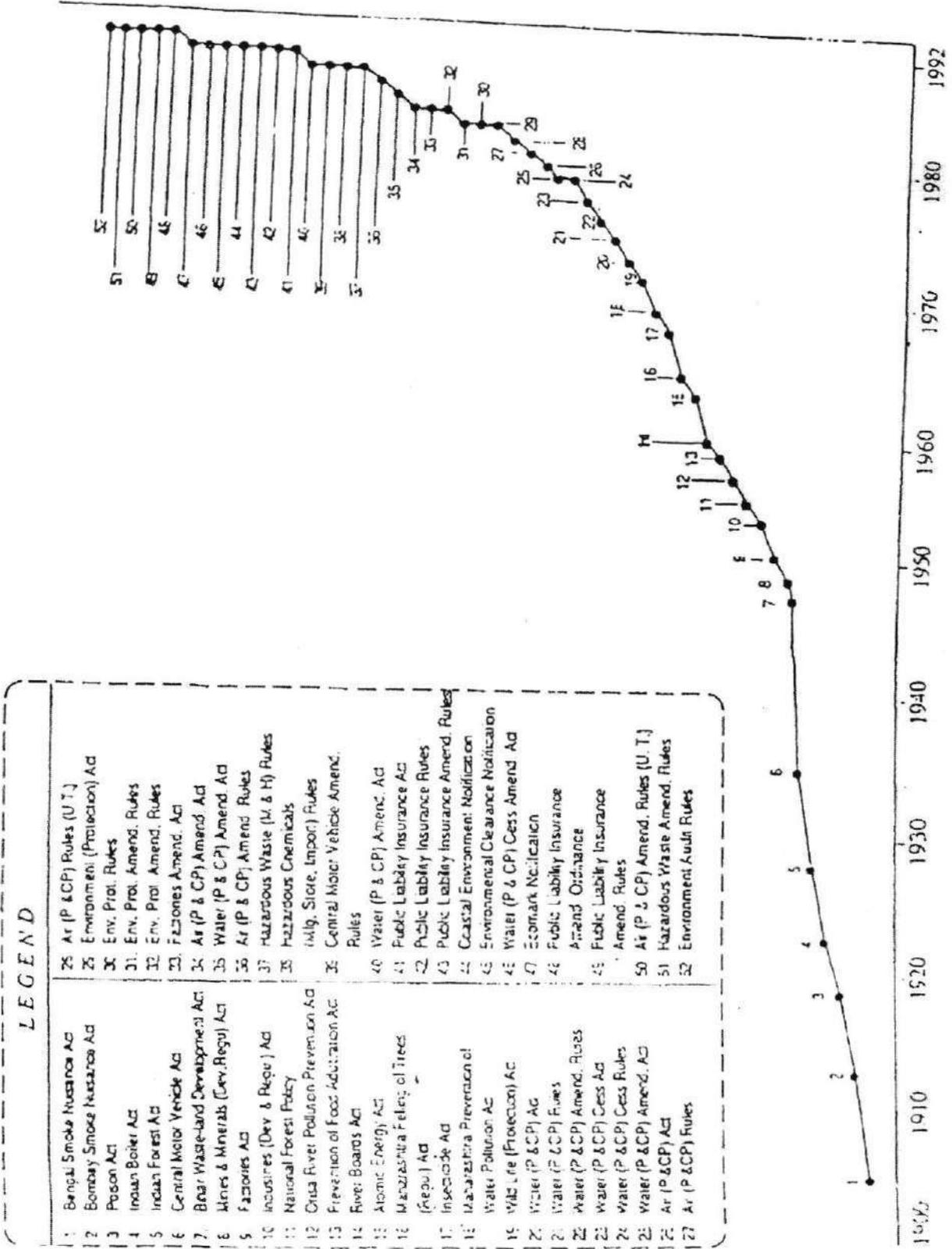
- 2 -

- 50. Air (P & CP) Amend. Rules (U.T).
- 51. Hazardous Waste Amend. Rules.
- 52. Environment Audit Rules.

**Note:** 'P' and 'C.P' - 'Prevention and Control of Pollution'.

**Reference:** The above listing is adapted  
From:

'Environmental Audit' (An overview) (page 12)  
By 'Ashok Keshav Mhaskar',  
M/ब. 'MEDIA ENVIRO',  
Pune.



*Report on*

PREPARATION OF ENVIRONMENTAL VIABILITY FOR SUN  
PHARMACEUTICAL INDUSTRIES LIMITED, SATHAMAI VILLAGE,  
MADHURANTHAKKAM TALUK

*submitted to*

Sun Pharmaceutical Industries Limited  
(SPIL)

*Prepared by*



Centre for Environmental Studies  
Anna University, Chennai - 600 025

June, 2005

Contents

| Chapter No.        | Title                     | Page No. |
|--------------------|---------------------------|----------|
| <i>Chapter I</i>   | <i>Introduction</i>       | 1        |
| <i>Chapter II</i>  | <i>Process Evaluation</i> | 3        |
| <i>Chapter III</i> | <i>Summary</i>            | 42       |

## Chapter I

### Introduction

#### 1.0 General

Sun Pharmaceuticals Industries Limited (SPIL) is an established public limited company, managing its operation in the field of bulk drugs and intermediates manufacturing in the region of Maharashtra and Gujarat. The present manufacturing facility was originally established during the year of 1990 and is located at Sathamai Village under Maduranthakam Taluk in Kancheepuram District.

The SPIL is proposing to manufacture ten new pharmaceutical products at the facility in Sathamai village, Maduranthakam Taluk. The SPIL has already obtained license for three products that are

1. Frusemide
2. Analgin
3. Mebendazole

In the present scenario, the SPIL has approached Centre for Environmental Studies (CES) to evaluate ten new products that are listed below:

1. Metadoxine
2. Metoprolol Tartrate
3. Analgin Magnesium
4. Tramadol HCl
5. Carbamazepine
6. Flurbiprofen
7. Danazol
8. Clomipramine
9. Sodium Valproate
10. Oxetacaine



1

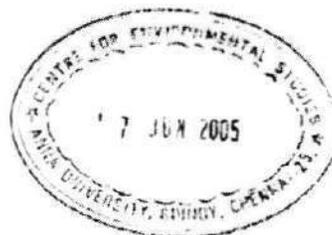
The scope of the study was to evaluate the processes of the ten new products and prepare an Environmental Viability Report based on the waste generated by the ten proposed process.

The scope of the present study on preparation of an Environmental Viability Report for SPIL is to evaluate stoichiometrically the reaction equations of all the processes and to check the validity of the processes. Further, based on the input given by the SPIL a detailed mass balance study was conducted for each processes and the total waste generated have been determined.

### 1.1 Objectives

The overall aim of the present study is to prepare an Environmental viability report based on waste generated by the ten new processes. Accordingly the following objectives have been formulated and furnished below

1. To determine stoichiometrically, the validity of the reaction equations for all the processes.
2. To conduct a mass balance study to determine the waste generated by the processes.
3. To prepare the Environmental viability report based on the information derived from the above objectives.



## Chapter II

### Process Evaluation

#### 2.0 Introduction

The Sun Pharmaceutical Unit has obtained permission and environmental clearance to manufacture the following Pharmaceutical products with the rate of production per month

- |                 |   |          |
|-----------------|---|----------|
| 1. Frusemide    | - | 3.0 T/M  |
| 2. Analgin      | - | 30.0 T/M |
| 3. Mcebendazole | - | 5.0 T/M  |

[Vide Lr. Procs. No. T3/CPT-MGR (S)/F -2057W&A dated 2.6.92

Tamil Nadu Pollution Control Board (copy of this is annexed at the end of this report)].

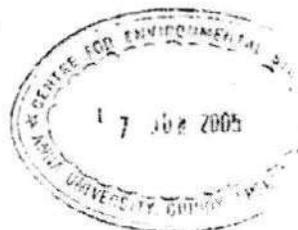
The SPII. has now proposed to abandoned the existing manufacturing processes and commence production of ten new products as detailed in chapter I. It is now essential that in the event of new processing and consequently the loading of the waste into the environment has to be understood so as to ascertain the environmental quality. Hence, it is mandatory to determine the amount of waste generated by individual processes.

The following sections discuss the methodology adopted to determine the waste generated by the processes.

#### 2.1 Methodology

The reaction equations for all the processes have been obtained (though it is confidential and not to be shared with any agencies). The equations have been checked stoichiometrically and number of moles of all the reactants in the reaction equations have been ascertained. The critical reactant has been identified and the number of moles of the yield has been checked for the validity of the reactions equations.

3



### 2.1.1 Mass Balance

Based on the data supplied by the SPIL for all the ten products, mass balance on reactants, solvents, products and waste generated have been analyzed. The summary of the waste generated by individual processes have been furnished.

### 2.2. Evaluation of Proposed Processes

The detailed process flow chat for all the processes have been collected and the stage wise input of all the processes have been worked out and listed in the Flow Chart. Similarly, the stage wise output from the process flow chart has been determined and furnished in the flow chart.

The Summary of all the input into the control volume and output from the control volume have been summarized at the end of the process evaluation. The following sections discuss the process evaluation of the ten products.

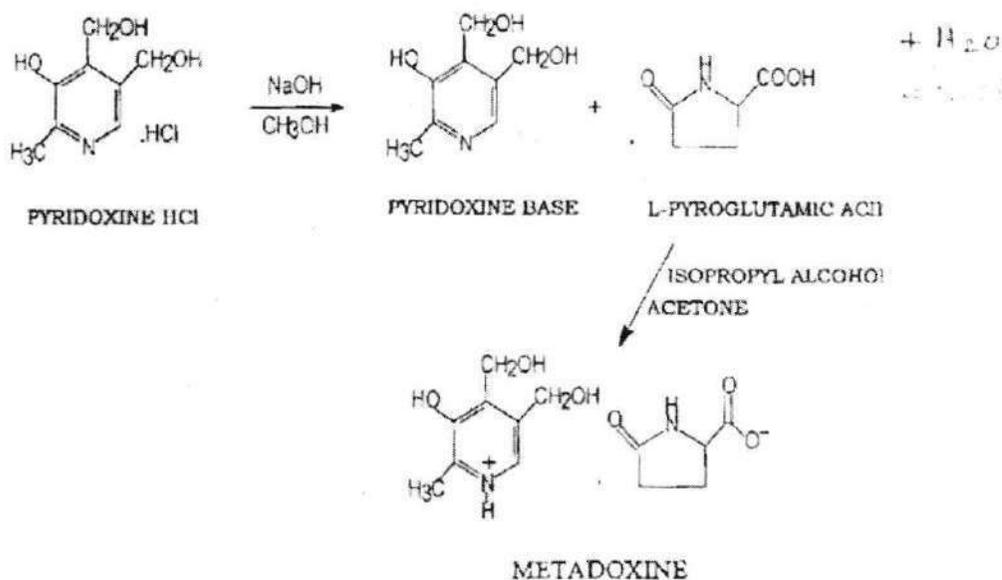


### 2.2.1 Metadoxine

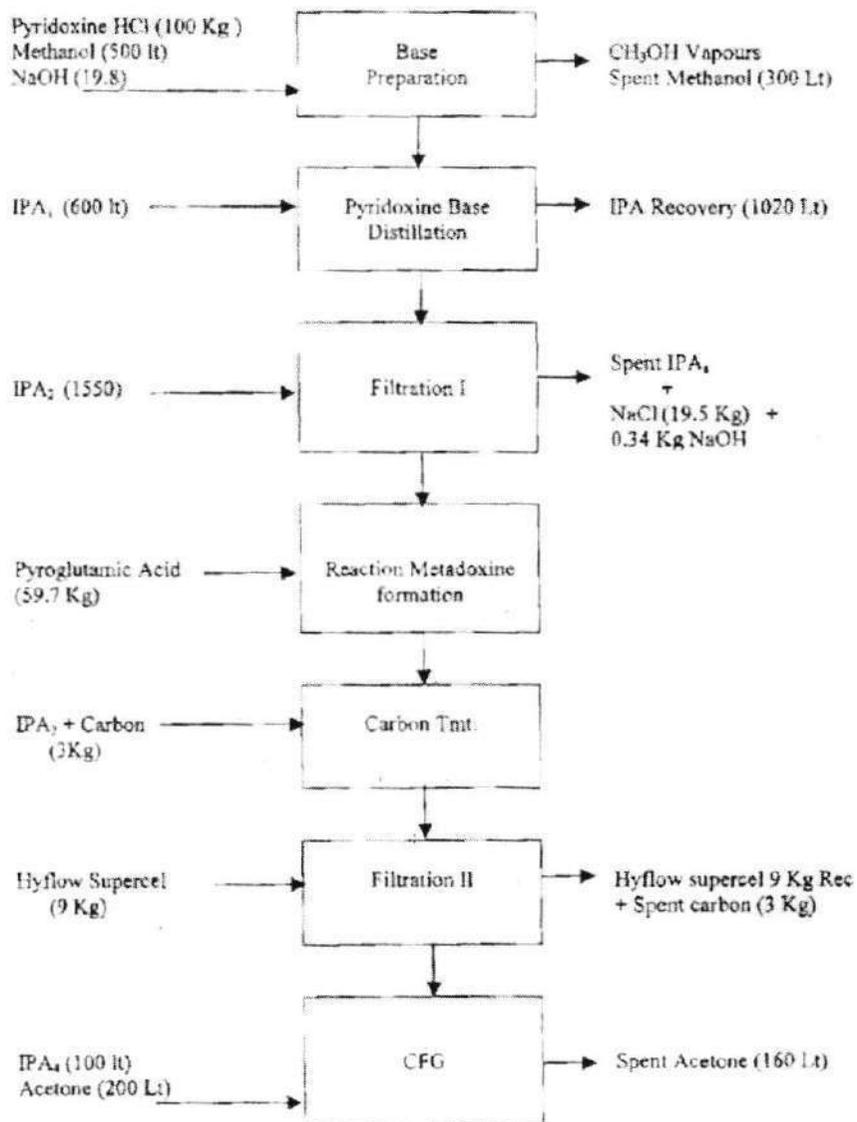
The reaction equation (schematic diagram) for the synthesis of Metadoxine is given below. In this process 0.4866 Kg moles of Pyridoxine HCl requires 0.4866 or more of NaOH to produce 0.4866 or less of Pyridoxine base. Similarly the Metadoxine formed should be equal to or less than 0.4866 Kg moles, which in practice is only 0.335 kg moles. Hence the overall reaction is within the mass balance principles.

**Note:** In the above reaction, the amount of NaOH required to remove 0.4866 Kg mole of HCl is  $0.4866 \times 40 = 19.46$  Kg of NaOH. Actual amount taken is 19.8 Kg to ensure complete conversion

#### Schematic Diagram

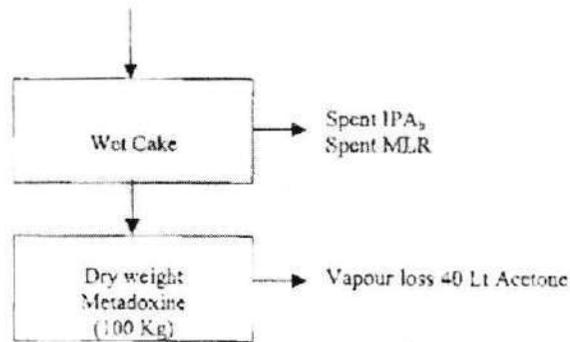


## Metadoxine - Process flow diagram



9525

023/IA\_1

**Summary:**

$$\text{IPA}_1 + \text{IPA}_2 + \text{IPA}_3 + \text{IPA}_4 = 2550 \text{ lt}$$

(600) (1550) (300) (100)

$$\text{Spent IPA}_4 + \text{IPA}_5 = 1530 \text{ lt, IPA Rec: 1020, Tot: 2550 Lt}$$

**Total Waste:**

$$\text{Solid} = 100 + 59.7 + 19.8 - 100 - 19.5 - 31.28 = 28.72 \text{ kg}$$

(Note, 31.28 recovery as starting material)

$$\text{Liquid} = 500 + 2550 + 20 - 300 - 2550 - 160 - 100 = 140 \text{ L}$$

$$\text{Vapour loss} = 100 \text{ L}$$

$$\text{Solid waste} = 28.72 \text{ kg}$$

$$\text{Liquid} = 140 \text{ L}$$

$$\text{Spent Carbon} = 3 \text{ kg}$$

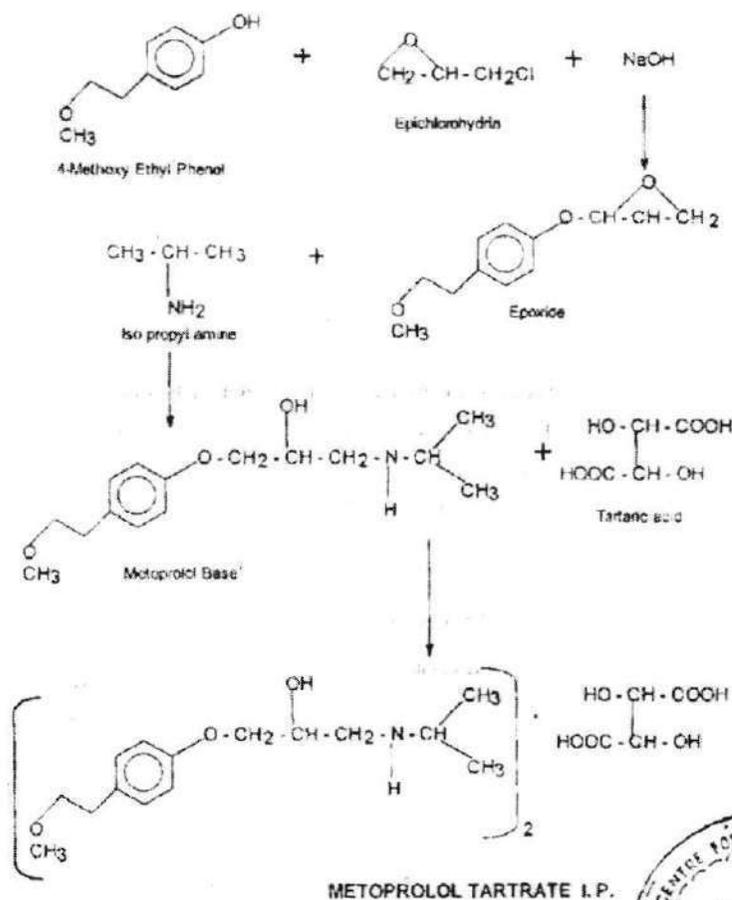


### 2.2.2 Metoprolol Tartrate

The reaction equation for the synthesis of Metoprolol Tartrate is shown below. For 1.22 Kg mole of Epichlorohydrin 1.22 Kg mole or less of product should be formed which in turn reacts with isopropylamine (4.57 Kg mole) to yield the product.

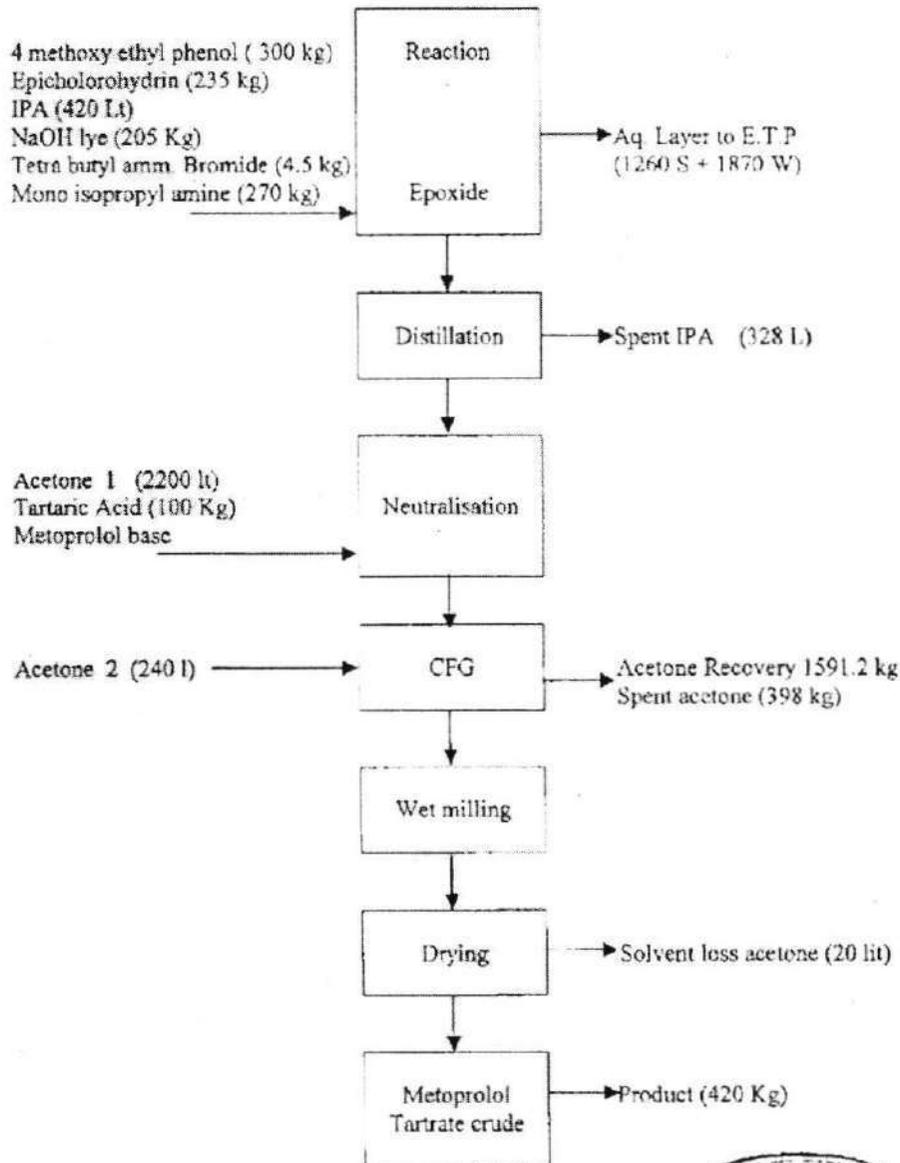
The overall reaction is within the mass balance principles. The metoprolol tartare (0.614 Kg mole) formed is quite less to the expected 1.22 Kg mole of yield.

#### Schematic Diagram



95251272023/IA-I

## Metoprolol Tartrate - Process flow diagram



**Summary:**

Acetone 1 + Acetone 2 = 2440 Lt

DM water = 2000 Lt

Liquid Waste Generated = 3130 L.

Solid = Nil

Loss of Solvent = 20 L

Strong Liquid Waste = 1260 L

Weak Liquid Waste = 1870 L

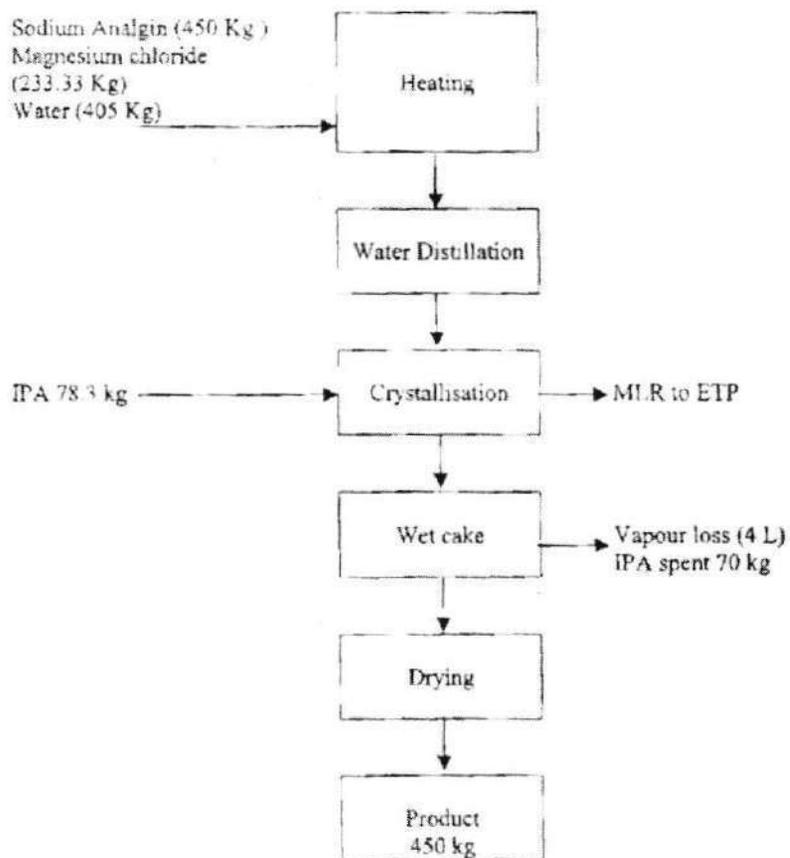
Solvent Loss = 20 L

Total Waste = 3150 L





## Analgin Magnesium - Process flow diagram



## Summary of Waste Generated:

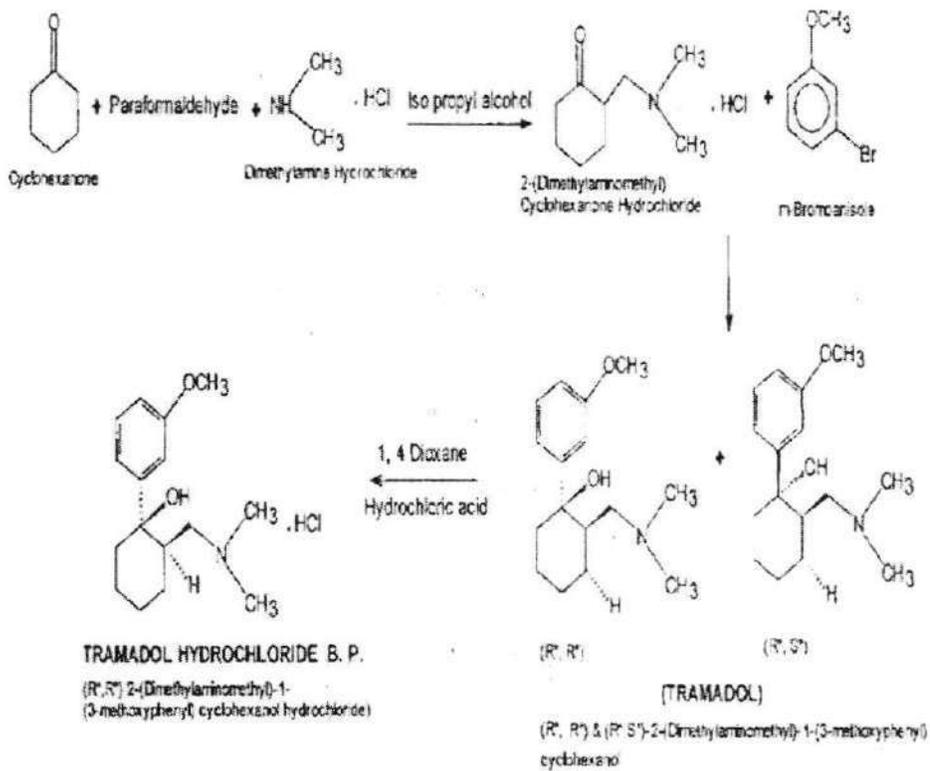
|                       |  |
|-----------------------|--|
| Total Waste generated | = 450 + 233.33 + 405 + 78.3 - 450 - 70   |
|                       | = 646.63 - Vapour Loss of 4 L = 642.63 L |
| Liquid                | = 642.63 L                               |
| Loss of Solvent       | = 4L                                     |
| Strong liquid waste   | = 172 L                                  |
| Weak liquid waste     | = 470 L                                  |
| Solvent loss          | = 4 L                                    |
| Total Waste           | 646 Lt                                   |



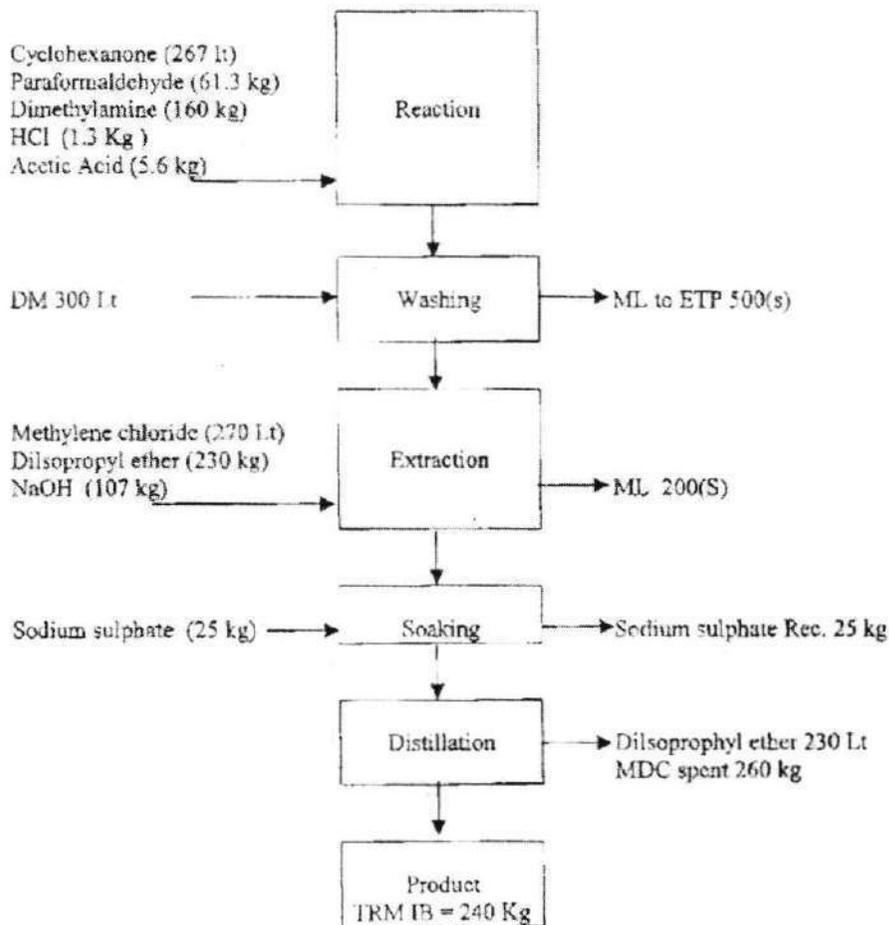
### 2.2.4 Tramadol Hydrochloride

The reaction equation for the synthesis of Tramadol HCl is given below. For reaction to occur ideally 1 mole of paraformaldehyde is required for every 3 moles of dimethylamine hydrochloride and 3 moles of cyclohexanone to get 3 moles of product. But it is seen that the reactants are taken in excess and the product formed is less than expected. The overall reaction is within the mass balance.

#### Schematic Diagram



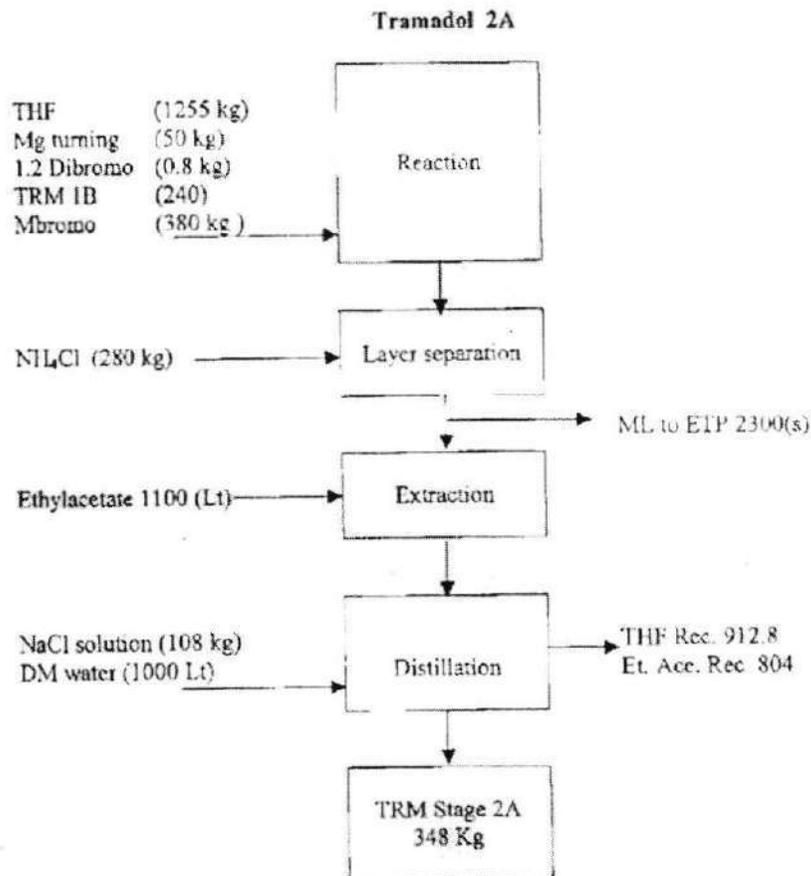
## Tramadol Hydrochloride – Process flow diagram



## Summary of Waste generated :

$$\begin{aligned}
 \text{Waste from TRM IB} &= (267+61.3+160+1.3+5.6+300+270+230+107+25)- \\
 &\quad (25+230+260+240) \\
 &= 672.2 \text{ L}
 \end{aligned}$$

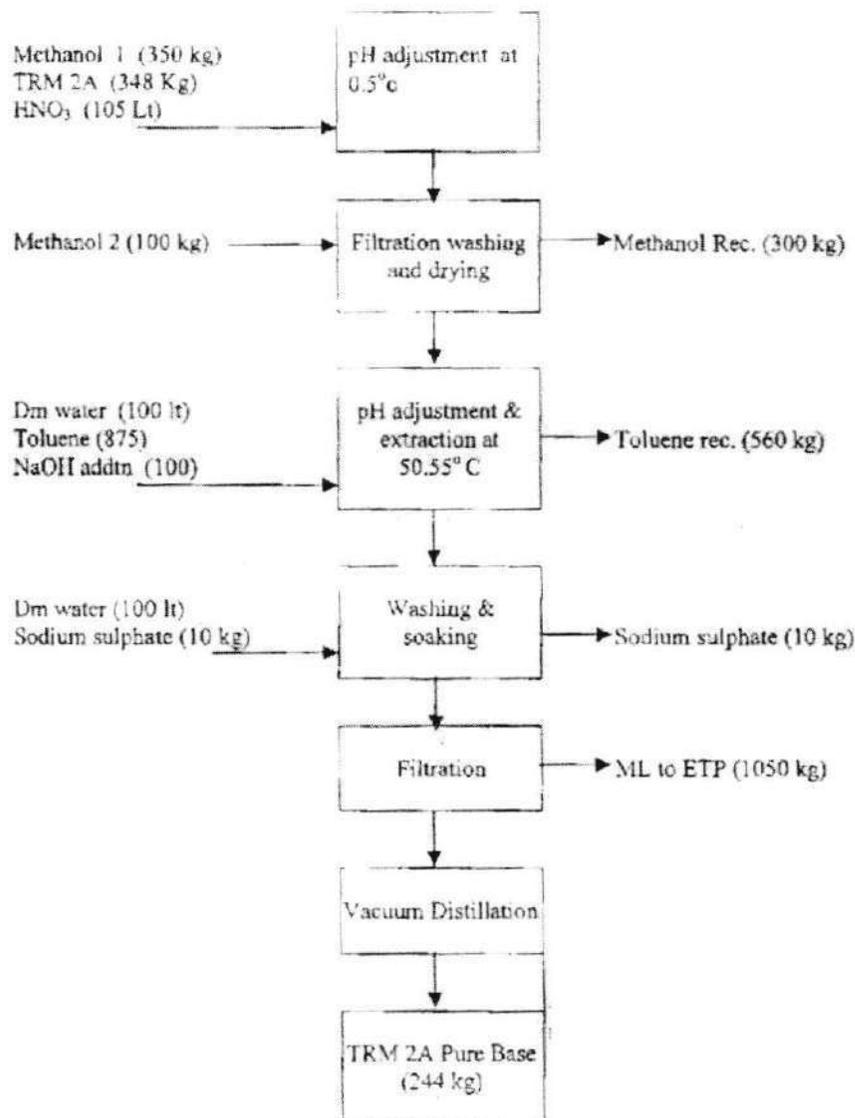




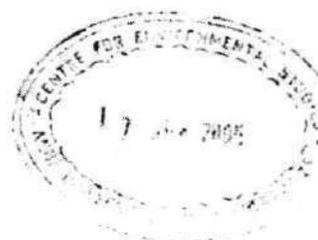
Waste  $W_2 = 2349$  L



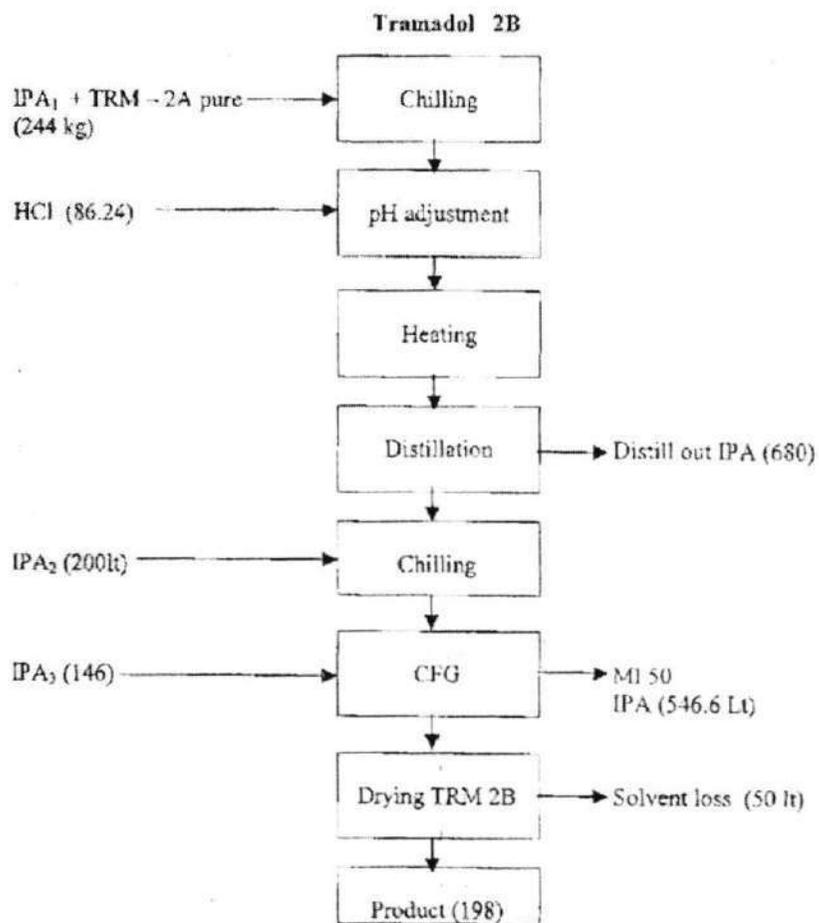
## Tramadol 2A Pure Base



Methanol 1 + Methanol 2 = 450 Lt

Waste W<sub>3</sub> = 974 L

9525/2023/IA\_1

**Summary of Waste Generated :**

$$IPA_1 + IPA_2 + IPA_3 = 1146.6$$

$$W_4 = (900 + 244 + 86.24 + 200 + 146) - (680 + 546.6 + 198) = 151.64$$

$$\text{Total Waste} = 672 + 2349 + 974 - 151.64 = 4146.64 \text{ L}$$

$$\text{Liquid Waste} = 4146.64 - 50 \text{ L} = 4096.64 \text{ L}$$

$$\text{Strong Liquid Waste} = 4100 \text{ L}$$

$$\text{Solvent Loss} = 87 \text{ L}$$

$$\text{Total Waste} = \underline{4187 \text{ L}}$$



**GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE  
(IA DIVISION-INDUSTRY-3 SECTOR)**

\*\*\*\*\*

Dated: 5.1.2024

**MINUTES OF THE 71<sup>st</sup> EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING  
HELD ON 29<sup>th</sup> DECEMBER, 2023**

Venue: Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003 through Video Conferencing (VC)

**Time: 10:30 AM onwards**

**(i) Opening Remarks by the Chairman**

Prof. (Dr.) A.B. Pandit, Chairman welcomed the Committee members and opened the EAC meeting for further deliberations.

**(ii) Details of Agenda items by the Member Secretary**

The Member Secretary then apprised the Committee about the details of Agenda items to be discussed during this Expert Appraisal Committee (EAC) meeting.

**(iii) Confirmation of Minutes of the 70<sup>th</sup> EAC Meeting.**

The EAC noted that the final minutes of the above meeting were issued after incorporating the comments offered by the members and approved by the Chairman. The EAC confirmed the MoM with the following corrections in agenda No (70.16)

**Agenda No. 70.16**

**Proposed Expansion Cum Modernization of Pesticide Technical, Pesticide Specific Intermediates & Specialty Chemicals with production capacity from 669300 TPA (629300 TPA of EC products and Non - EC products 40000 TPA) to 721715 TPA (641200 TPA of EC products and non-EC products 40365 TPA, Product required amendment in EC 40150 TPA located at Plot No. D-3/6, Dahej - III GIDC Estate, Kadodara Village, Vagra Taluka, Bharuch, Gujarat by M/s UPL Ltd - Consideration of Environmental Clearance**

**[Proposal No. IA/GJ/IND3/453654/2023, File No. J-11011/306/2016-IA-II(I)]**

1. The factual information was verified in the PARIVESH portal and hence the following corrections are incorporated:

| No | Details Mentioned in Published MoM ID EC/MOM/EAC/289661/11/2023 dated 13-12-2023 (EAC - Industry 3 Sector) |   | Request by UPL  | To be read as   |
|----|--|---|---|---|
|    | Page No of MoM   | Details as per MoM  |   |   |
| 1  | 12   | <b>Sub-para 3.1.1 Details of Proposal - Title</b><br><b>“Expansion Cum Modernization of Pesticide Technical, Pesticide Specific Intermediates, Specialty Chemicals by UPL LIMITED located at VALSAD, GUJARAT”</b>                                 | <b>Revised Title:</b> “Expansion Cum Modernization of Pesticide Technical, Pesticide Specific Intermediates, Specialty Chemicals by UPL LIMITED located at Plot No. D-3/6, Dahej - III GIDC Estate, Kadodara Village, Vagra Taluka, Bharuch, Gujarat” | Expansion Cum Modernization of Pesticide Technical, Pesticide Specific Intermediates, Specialty Chemicals by UPL LIMITED located at Plot No. D-3/6, Dahej - III GIDC Estate, Kadodara Village, Vagra Taluka, Bharuch, Gujarat |
| 2  | 23   | <b>3.1.6.1 - Specific Specific Condition 28</b> - PP shall comply with the action plan presented before EAC for mitigation measures as per Ministry’s Office Memorandum 31st October 2019 regarding projects located in Critically Polluted Area. | The Project is not located in Critically Polluted Area hence we request to delete the condition no 28 at Page No 23.  | Omitted   |
| 3  | 237  | <b>Specific Condition XXVI</b> - PP shall comply with the action plan presented before EAC for mitigation measures as per Ministry’s Office Memorandum 31st October 2019 regarding projects located in Critically Polluted Area.                  | The Project is not located in Critically Polluted Area hence we request to delete the condition no XXVI at Page No 237.   | Omitted   |

### Agenda No. 71.1

**Proposed Manufacturing unit of Synthetic Ester, General Plasticizers, Specialty Plasticizers, Fire Retardant Plasticizers and Lubricants and Lubricating oil with total Production capacity of 61,320 MTPA and by- products - 1,392 MTPA located at Gate no. 20/2, of MIDC, Biloshi, Palghar, Maharashtra by M/s. Witmans Industries Pvt. Ltd. - Consideration of Environmental Clearance**

**[Proposal No. IA/MH/IND3/425874/2023; File No. IA-J-11011/284/2021-IA-II(I)]**

The project was earlier considered in the 66<sup>th</sup> EAC meeting held on 26<sup>th</sup> September, 2023 in which proposal was recommended. Further, Ministry desired some information in form of ADS, PP submitted the following -Status

of land use change permission for industrial use, Details of wildlife sanctuary /ESZ/National Park within 10 km distance, Status land acquisition please also provide land ownership documents, as per KML file, road is passing through project site. Please provide NOC from revenue department for road passing within the project site. PP submitted the information vide letter dated 6.12.2023.

EAC while discussing the ADS raised by the ministry, the EAC noted that one road is passing through the project site which bifurcates plot area into two parts. Accordingly, the Committee suggested to revise the plot area excluding the road area alongwith the area for the widening of the road in future.

In this regard the Committee desired the following additional information.

1. Revised layout map of the plot area excluding road along with the area for the widening of the road in future.
2. Seprate boundary wall for both the plot area along with the dedicated entrance.
3. Approval to be obtain for PWD regarding the road.
4. Resultant plot area after exclusions of the road from the plot area along with breakup for various uses.
5. Revised action plan for Greenbelt development.
6. Onsite and Offsite emergency plan.
7. Revised Breakup for EMP i.e (capital and Recurring cost).

Accordingly, proposal was deferred for want of above additional information. Above all additional information shall be submitted online to the PARIVESH portal for further consideration by EAC.

### **Agenda No.71.2**

**Proposed Expansion of synthetic organic chemical manufacturing within the premises with production capacity from 1549.2 TPA to 9376 TPA located at Plot No – N 180/181/182, MIDC Tarapur Boisar, Taluk & District-Palghar, Maharashtra by M/s. Nikita Transphase Adducts Pvt. Ltd - Reconsideration of Environmental Clearance**

**[Proposal No: IA/MH/IND3/432693/2023 F. No. IA-J-11011/115/2022-IA-I]**

1. The proposal is for environmental clearance to the Proposed Expansion of synthetic organic chemical manufacturing within the premises with production capacity from 1549.2 TPA to 9376 TPA located at Plot No – N 180/181/182, MIDC Tarapur Boisar, Taluk & District-Palghar, Maharashtra by M/s. Nikita Transphase Adducts Pvt. Ltd.
2. The project/activity is covered under Category 'B' of item 5 (f)-Synthetic organic chemicals of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). However, due to the applicability of general conditions i.e. project site is located within CPA, it requires appraisal at Central Level by the Expert Appraisal Committee (EAC).

3. The ToR was issued by the Ministry vide letter No. IA-J-11011/115/2022-IA-II (I) dated 20.4.2022. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is an **Expansion case**. The proposal was placed in the 69<sup>th</sup> EAC Meeting held on 16<sup>th</sup> November, 2023, wherein the EAC deferred the proposal for want of requisite information now the proposal is placed in the 71<sup>st</sup> EAC meeting held on 29<sup>th</sup> December, 2023 wherein the PP and an accredited Consultant, **M/s. Shree Green Consultants** (NABET Accreditation Certificate No. NABET/EIA/2124/IA0072 valid till 24<sup>th</sup> February, 2024) made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:
4. The PP reported that the existing land area 2030.14 m<sup>2</sup>, no additional land area is not required for proposed expansion and no R& R is involved in the Project. The details of various products are as follows:

| Sr.No                | Name of the product                                 | CAS NO.    | Quantity-TPA |             |                       |
|----------------------|---|------------|--------------|-------------|-----------------------|
|                      |   |            | Existing*    | Proposed    | Total after expansion |
| <b>A</b>             | <b>Antioxidant Product</b>                          |            |              |             |                       |
| 1                    | Antiox-SP   | 61788-44-1 | 100          | 600         | 700                   |
| 2                    | Antiox-SP 27  | -          | 80           | 80          | 160                   |
| 3                    | Antiox SD 20  | 68442-68-2 | 120          | 360         | 480                   |
| 4                    | Antiox MD 65  | -          | 12           | -6          | 6                     |
| 5                    | Antiox BCD/ Sodium/ Calcium salts of Sulphuric acid | 68610-51-5 | -            | 2400        | 2400                  |
| <b>Sub Total (A)</b> |   |            |              | <b>3434</b> | <b>3746</b>           |
| <b>B</b>             | <b>CTAC Product</b>                                 |            |              |             |                       |
| 1                    | ATAC-3016   | 112-02-07  | -            | 46          | 46                    |
| 2                    | TTAC-5086 B   | 112-02-07  | -            | 340         | 340                   |
| <b>Sub Total (B)</b> |   |            |              | <b>386</b>  | <b>386</b>            |
| <b>C</b>             | <b>Niquat Product</b>                               |            |              |             |                       |
| 1                    | Niquat BKC-50                                       | 8001-54-5  | -            | 40          | 40                    |
| 2                    | Niquat BKC-80                                       | 8001-54-5  | -            | 40          | 40                    |
| 3                    | Nimul-T   | -          | -            | 10          | 10                    |
| 4                    | Nimul-D   | -          | -            | 10          | 10                    |
| <b>Sub Total (C)</b> |   |            |              | <b>100</b>  | <b>100</b>            |
| <b>D</b>             | <b>Non-ionic surfactants</b>                        |            |              |             |                       |

| Sr.No                            | Name of the product                                | CAS NO.    | Quantity-TPA  |               |                       |
|----------------------------------|--|------------|---------------|---------------|-----------------------|
|                                  |  |            | Existing*     | Proposed      | Total after expansion |
| 1                                | Nimul  | 99734-09-5 | 24            | 40            | 64                    |
| 2                                | Nimul 320  | 9002-92-0  | -             | 60            | 60                    |
| 3                                | Nimul SP 2760                                      | 99734-09-5 | -             | 120           | 120                   |
| 4                                | Nimul SP 2780                                      | 99734-09-5 | -             | 120           | 120                   |
| 5                                | Nimul TETRAGON                                     | -          | -             | 300           | 300                   |
| <b>Sub Total (D)</b>             |  |            |               | <b>640</b>    | <b>664</b>            |
| <b>E</b>                         | <b>PFD and Methanol solution</b>                   |            |               |               |                       |
| 1                                | Formasol-50  | -          | 720           | +2280         | 3000                  |
| 2                                | Oxanone  | -          | 10            | -             | 10                    |
| 3                                | Oxistab  | -          | 26            | +1174         | 1200                  |
| <b>Sub Total (E)</b>             |  |            |               | <b>3454</b>   | <b>4210</b>           |
| <b>F</b>                         | <b>Aromatic Aldehydes and Ketones</b>              |            |               |               |                       |
| 1                                | Crude 16   | -          | -             | 120           | 120                   |
| <b>Sub Total (F)</b>             |  |            |               | <b>120</b>    | <b>120</b>            |
| <b>G</b>                         | <b>Latex Surfactant and Rubber Based Chemicals</b> |            |               |               |                       |
| 1                                | FOAMAX   | -          | 7.2           | -7.2          | 00                    |
| 2                                | STABEX-35  | -          | 1.8           | -1.8          | 00                    |
| 3                                | PYRAMID  | -          | 240           | -240          | 00                    |
| 4                                | WAXMUL/Ninol                                       | -          | 120           | -120          | 00                    |
| 5                                | Hypergel base                                      | -          | 4.2           | -4.2          | 00                    |
| 6                                | Polyfloc/Helifax<br>249PA                          | -          | 24            | -24           | 00                    |
| 7                                | Nuvisol  | -          | 60            | -60           | 00                    |
| <b>Sub Total (G)</b>             |  |            |               | <b>00</b>     | <b>00</b>             |
| <b>H</b>                         | <b>Job Work</b>                                    | -          | <b>00</b>     | <b>100</b>    | <b>100</b>            |
| <b>I</b>                         | <b>R &amp; D Products</b>                          | -          | <b>00</b>     | <b>50</b>     | <b>50</b>             |
| <b>Total (A+B+C+D+E+F+G+H+I)</b> |  |            | <b>1549.2</b> | <b>7826.8</b> | <b>9376</b>           |

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction is issued under the E(P) Act/Air Act/Water Act.
6. The PP reported that the obtained the CTO from MSPCB vide consent letter No. RO- THANE/Consent/TR-I/1807000276 dated 06.07.2018 which is valid up to 31.07.2023. Certified CTO compliance issued vide no. MPC/SROT-1/1030/2023 dated 18/08/2023. All the conditions are complied.
7. The PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River/ water body Arabian Sea is flowing at a distance of 3.1 km in West direction. No Schedule-I species around 10 km distance from the project site.
8. The PP reported that the **Ambient air quality** monitoring was carried out at 8 locations during 1<sup>st</sup> December 2022 to 28<sup>th</sup> February 2023 and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> ( 43.2-68.40  $\mu\text{g}/\text{m}^3$ ), PM<sub>2.5</sub> (20.4-34.6  $\mu\text{g}/\text{m}^3$ ), SO<sub>2</sub> (6.8-11.6  $\mu\text{g}/\text{m}^3$ ), NO<sub>x</sub> (14-26.5  $\mu\text{g}/\text{m}^3$ ) and CO (0.49 – 0.58  $\text{mg}/\text{m}^3$ ) other parameters i.e VOC, Cl<sub>2</sub>, HCl, HBr & H<sub>2</sub>S is BDL. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.25  $\mu\text{g}/\text{m}^3$ , 2.11  $\mu\text{g}/\text{m}^3$ , 3.13  $\mu\text{g}/\text{m}^3$  and 0.796  $\mu\text{g}/\text{m}^3$  with respect to PM<sub>10</sub>, SO<sub>x</sub>, NO<sub>x</sub> and CO. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).
9. The PP reported that the total water requirement of the project for domestic and industrial activity during the operation phase will be 12.18 KLD. Further, **PP revised the water balance** and informed that total water requirement is 19 KLD. Out of which fresh water requirement will be 10.35 KLD and remaining will be met from recycled water of 8.65 KLD. The fresh water requirement will be met through Tarapur MIDC supply. **As per revised water balance**, effluent generation will be 9.3 KLD of which industrial effluent will be 7.7 KLD and 1.6 will be sewage. Total waste water generated from process will be treated in solvent stripper. Then treated water from solvent stripper will be treated in in-house MEE. MEE condensate will be treated in in-house ETP (Primary + Secondary + Tertiary) along with waste water from Boiler & Cooling. Mother Liquor from MEE will be sent to in-house Agitated Thin Film Dryer (ATFD) and dry salt will be sent to nearest TSDF site. Treated wastewater from ETP will be reused for industrial purpose and ETP Sludge will be sent to TSDF site. Total proposed (Existing + Proposed) domestic wastewater 1.6 KLD will be treated in STP and will be reused within premises for gardening purpose and shall maintain Zero Liquid Discharge.
10. Power requirement after expansion will be **140 KVA** and will be met from Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL) Power Supply. One D.G set of **45 KVA x 1 Nos.** will be used as standby during power failure. Stack height of 11 meter will be provided as per CPCB norms to the proposed DG sets.
11. Existing unit has **Thermic Fluid Heater (1 Lakh kcal) and D.G Set (45 KVA x 1)**, Additionally, one **Boiler-1 capacity of 0.2 TPH** steam boiler will be installed. Acoustic enclosure with adequate stack height & Two Stage scrubber will be installed for controlling the particulate emissions within the statutory limit.

| Sr. No | Fuel   | Fuel Consumption |            |             | Source & Mode of Transportation |
|--------|--------|------------------|------------|-------------|---------------------------------|
|        |        | Existing*        | Proposed   | Total       |                                 |
| 1.     | Diesel | 20 Lit/Hr.       | 30 Lit/Hr. | 50 Lit/Hr.  | From Authorized suppliers       |
| 2.     | LDO    | 200 Lit/Day      | 50 Lit/Day | 250 Lit/Day | From Authorized suppliers       |

Note: \*Existing fuel consumption per Consent vide letter No. RO-THANE/CONSENT/TR-I/1807000276 dated 06/07/2018

Details of Flue Gas Emission are given as below.

| Sl. No          | Stack attached to                  | Type of Fuel Used | Pollutants   | Stack Height In meter | Air pollution control equipment               |
|-----------------|------------------------------------|-------------------|--|-----------------------|---|
| <b>Existing</b> |                                    |                   |  |                       |   |
| 1               | Thermic Fluid Heater (1 Lakh kcal) | LDO               | PM $\leq$ 120 mg/Nm <sup>3</sup><br>SOx $\leq$ 80 ppm<br>NOx $\leq$ 40 ppm | 30                    | Adequate stack height                         |
| 2               | DG Set 45 KVA                      | Diesel            | PM $\leq$ 120 mg/Nm <sup>3</sup><br>SOx $\leq$ 80 ppm<br>NOx $\leq$ 40 ppm | 11                    | Acoustic enclosure With adequate stack height |
| <b>Proposed</b> |                                    |                   |  |                       |   |
| 1               | Boiler-1 0.2 TPH                   | LDO               | PM $\leq$ 120 mg/Nm <sup>3</sup><br>SOx $\leq$ 80 ppm<br>NOx $\leq$ 40 ppm | 30                    | Adequate stack height                         |

Note: \*Existing flue gas stacks as per Consent vide letter No. RO-THANE/CONSENT/TR-I/1807000276 dated 06/07/2018

#### 12. Details of Process Emissions Generation and its Management:

| Sl. No | Stack attached to | Pollutants                       | Stack Height | Air pollution control equipment |
|--------|-------------------|----------------------------------|--------------|---------------------------------|
| 1      | Reaction vessel-1 | PM $\leq$ 120 mg/Nm <sup>3</sup> | 15           | Two stage scrubber              |
| 2      | Reaction vessel-2 | PM $\leq$ 120 mg/Nm <sup>3</sup> | 15           | Two stage scrubber              |
| 3      | Reaction vessel-3 | PM $\leq$ 120 mg/Nm <sup>3</sup> | 15           | Two stage scrubber              |
| 4      | Reaction vessel-4 | PM $\leq$ 120 mg/Nm <sup>3</sup> | 15           | Two stage scrubber              |

#### 13. Details of Solid Waste/ Hazardous Waste Generation and its Management:

| Sr. No. | Waste Code | Waste Name   | Quantity (MTA) |          |       | Disposal Mode   |
|---------|------------|--|----------------|----------|-------|---|
|         |            |  | Existing*      | Proposed | Total |   |
| 1       | I-5.1      | Used Spent Oil.  | 0              | 1.0      | 1.0   | Collection, storage, transportation and disposal by Sale out to Authorized Recycler |
| 2       | I-20.3     | Distillation Residue.  | 2.4            | 2.6      | 5.0   | Collection, storage, transportation and disposal CHWTSDF                            |
| 3       | I-20.1     | Contaminated aromatic, aliphatic or naphthenic solvents may or may not be fit for reuse. | 0              | 10       | 10    | Collection, storage, transportation and disposal by sent to CHWTSDF/Coprocessing    |
| 4       | I-20.2     | Spent solvents   | 0              | 10       | 10    | Collection, storage, transportation and disposal by sent to CHWTSDF/Coprocessing    |



|              |  |               |             |             |   |
|--------------|--|---------------|-------------|-------------|---|
| <b>Total</b> |  | <b>498.52</b> | <b>0.19</b> | <b>0.18</b> | Carbon sequester tree species will be planted as given below. |
|              |  |               |             |             |   |

19. The PP submitted the Onsite and Offsite disaster management plans in the EIA report.
20. The estimated project cost is Rs. 5 Crores. Total Employment will be 17 No. after proposed expansion
21. The proposal was earlier considered in the 69<sup>th</sup> EAC meeting held on 17<sup>th</sup> November, 2023, wherein the EAC deferred the proposal for want of requisite information. Reply submitted by the PP was deliberated in the Committee.
22. **Deliberations by the EAC**

During deliberations, EAC discussed the following issues:

- PP submitted the following quantified and specific compliance and action plan for the additional safeguard measures prescribed in the Ministry's O.M. dated 31.10.2019 for critically and severely polluted areas:

| Sr. NO.                       | MITIGATION MEASURES AS PER OM   | REMARKS  | TIMELINE   | FUND ALLOCATION (Rs. in LAKHS)  |                       |              |  |       |   |                                      |    |                    |   |                       |  |  |
|-------------------------------|---|--|--|---|-----------------------|--------------|--|-------|---|--------------------------------------|----|--------------------|---|-----------------------|--|--|
| <b><u>AIR ENVIRONMENT</u></b> |   |  |  |   |                       |              |  |       |   |                                      |    |                    |   |                       |  |  |
| i)                            | Stack emission levels should be stringent than the existing standards in terms of the identified critical pollutants. | <p><b>Complied.</b></p> <p>As per the notification, we will comply with the stringent air pollutants standards i.e., 80 % of proposed flue gas standards due to installation of proposed APCM like Adequate Stack Height for flue gas emission.</p> <p>Type of fuel details &amp; source of emissions are mentioned in below table:</p> <p><b>Proposed Flue Gas emission &amp; APCM details:</b></p> <table border="1"> <thead> <tr> <th>Sr. no</th> <th>Source of emission with capacity</th> <th>Stack Height (meter)</th> <th>Type of Fuel</th> <th>Type of Emissions i.e., Air Pollutants</th> <th>APC M</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Steam Boiler (500 kg/hr.) (Existing)</td> <td>13</td> <td>LDO OR Natural Gas</td> <td>PM&lt;120 mg/Nm<sup>3</sup><br/>SO<sub>2</sub>&lt;80 ppm<br/>NO<sub>x</sub>&lt;40 ppm</td> <td>Adequate Stack Height</td> </tr> </tbody> </table> | Sr. no   | Source of emission with capacity  | Stack Height (meter)  | Type of Fuel | Type of Emissions i.e., Air Pollutants | APC M | 1 | Steam Boiler (500 kg/hr.) (Existing) | 13 | LDO OR Natural Gas | PM<120 mg/Nm <sup>3</sup><br>SO <sub>2</sub> <80 ppm<br>NO <sub>x</sub> <40 ppm | Adequate Stack Height | Installation of APCMs (Adequate Stack height) will be done before the commencement of the project. | 10.0 Lacs for air Pollution Control & Prevention |
| Sr. no                        | Source of emission with capacity  | Stack Height (meter)   | Type of Fuel   | Type of Emissions i.e., Air Pollutants  | APC M                 |              |  |       |   |                                      |    |                    |   |                       |  |  |
| 1                             | Steam Boiler (500 kg/hr.) (Existing)  | 13   | LDO OR Natural Gas   | PM<120 mg/Nm <sup>3</sup><br>SO <sub>2</sub> <80 ppm<br>NO <sub>x</sub> <40 ppm | Adequate Stack Height |              |  |       |   |                                      |    |                    |   |                       |  |  |
|                               |   |  | The stringent air pollutants standards i.e., 80 % of proposed flue gas |   |                       |              |  |       |   |                                      |    |                    |   |                       |  |  |

|        |  | <table border="1"> <tr> <td>2</td> <td>Thermopack<br/>(6 Lac K Cal per hr.)<br/>(Existing)</td> <td>13</td> <td>LDO<br/>OR<br/>Natural Gas</td> <td>Adequate Stack Height</td> </tr> <tr> <td>3</td> <td>Thermopack<br/>(10 Lac K Cal per hr.)<br/>(Proposed)</td> <td>22</td> <td>LDO<br/>OR<br/>Natural Gas</td> <td>Adequate Stack Height</td> </tr> <tr> <td>4</td> <td>D.G. set<br/>(125 KVA)<br/>(Existing)</td> <td>3 m Above Roof</td> <td>Diesel</td> <td>Adequate Stack Height</td> </tr> </table> | 2                         | Thermopack<br>(6 Lac K Cal per hr.)<br>(Existing) | 13  | LDO<br>OR<br>Natural Gas | Adequate Stack Height                   | 3                         | Thermopack<br>(10 Lac K Cal per hr.)<br>(Proposed) | 22 | LDO<br>OR<br>Natural Gas  | Adequate Stack Height | 4 | D.G. set<br>(125 KVA)<br>(Existing) | 3 m Above Roof | Diesel | Adequate Stack Height | emission standards norms will be achieved by APCMs (Adequate Stack height) and it will be continuously monitored and reported to regulatory authorities. |
|--------|--|--|---------------------------|---|---|--------------------------|---|---------------------------|--|----|---|-----------------------|---|-------------------------------------|----------------|--------|-----------------------|--|
| 2      | Thermopack<br>(6 Lac K Cal per hr.)<br>(Existing)  | 13   | LDO<br>OR<br>Natural Gas  | Adequate Stack Height                             |   |                          |   |                           |  |    |   |                       |   |                                     |                |        |                       |  |
| 3      | Thermopack<br>(10 Lac K Cal per hr.)<br>(Proposed)   | 22   | LDO<br>OR<br>Natural Gas  | Adequate Stack Height                             |   |                          |   |                           |  |    |   |                       |   |                                     |                |        |                       |  |
| 4      | D.G. set<br>(125 KVA)<br>(Existing)  | 3 m Above Roof   | Diesel                    | Adequate Stack Height                             |   |                          |   |                           |  |    |   |                       |   |                                     |                |        |                       |  |
|        |  | <p><b>Proposed Process Gas emission &amp; APCM details:</b></p> <table border="1"> <thead> <tr> <th>Sr. no</th> <th>Source of emission</th> <th>Type of Emission with permissible limit</th> <th>Stack/vent Height (meter)</th> <th>APCM</th> </tr> </thead> <tbody> <tr> <td>1</td> <td colspan="4">No any Process gas emission from Existing and Proposed manufacturing.</td> </tr> </tbody> </table> <p><i>*Note: There will be continuous monitoring of APCM proposed for flue gas.</i></p>              |                           |   | Sr. no  | Source of emission       | Type of Emission with permissible limit | Stack/vent Height (meter) | APCM   | 1  | No any Process gas emission from Existing and Proposed manufacturing. |                       |   |                                     |                |        |                       |  |
| Sr. no | Source of emission   | Type of Emission with permissible limit  | Stack/vent Height (meter) | APCM  |   |                          |   |                           |  |    |   |                       |   |                                     |                |        |                       |  |
| 1      | No any Process gas emission from Existing and Proposed manufacturing.  |  |                           |   |   |                          |   |                           |  |    |   |                       |   |                                     |                |        |                       |  |
| ii)    | CEMS may be installed in all large/medium red category industries (air polluting) and connected to SPCB and CPCB server. | The proposed unit is falls under small scale category. However, we have proposed installation and Commencement of <b>Continuous Emission Monitoring System- CEMS (as per CPCB guidelines for relevant parameters)</b> .  |                           |   | Installation of CEMS will be done before the commencement of the expansion project. |                          |   |                           |  |    |   |                       |   |                                     |                |        |                       |  |
| iii)   | Effective fugitive emission control measures should be imposed in the process, transportation, packing etc.              | <p>Source of fugitive emissions are loading and unloading section, material handling and transfer points, roads and transportation of vehicles.</p> <p>Proposed measures to control fugitive emission:</p> <ul style="list-style-type: none"> <li>All reactors, treatment vessels, agitator and process pumps shall be mechanically sealed as per requirement.</li> <li>All process pumps shall be provided trays to collect probable leakage.</li> </ul>  |                           |   | Paved Road, dedusting system, Greenbelt development, APCM (Adequate Stack height)   |                          |   |                           |  |    |   |                       |   |                                     |                |        |                       |  |

|     |   |   |   |   |
|-----|---|---|---|---|
| iv) | Transportation of materials by rail/conveyor belt, wherever feasible.   | <ul style="list-style-type: none"> <li>• More weight age on selection of MOC of piping shall be given to avoid leakage/spillage.</li> <li>• Overflow system with return line to day tank/storage tank from batch tank will be provided to prevent hazardous material overflow.</li> <li>• De-dusting system will be provided at solid product bagging area.</li> <li>• Proper system shall be provided for decontamination and effective cleaning of drums.</li> <li>• All transfer points shall be fully enclosed.</li> <li>• Airborne dust shall be controlled.</li> <li>• All roads shall be paved on which movement of raw materials or products will take place.</li> <li>• Maintenance of air pollution control equipment shall be done regularly.</li> <li>• All the workers shall be provided with dust mask.</li> <li>• Green belt will be developed around the plant to arrest the fugitive emissions.</li> <li>• Whole process is/will be carried out in close loop.</li> <li>• Pipe line is/will be having minimum flange.</li> <li>• Proper ventilation is/will be provided.</li> <li>• No use of any Solid fuel. Is/will use only LDO OR Natural gas as fuel.</li> <li>• Raw materials are/will be stored in the covered area only.</li> <li>• Good housekeeping, proper maintenance and continuous observation is/will carry out to prevent the chances of any fugitive emission from process area.</li> <li>• Water sprinkling for dust suppression which reduce up to 30-40% pollution.</li> </ul> | installation etc. will be done before the commencement of the proposed expansion project.   |   |
| v)  | Encourage use of cleaner fuels (pet coke/furnace oil/LSHS may be avoided).  | <p><b>Complied</b></p> <p>They will not use Pet-coke, furnace oil, LSHS as a fuel. They will only use <b>Natural Gas (clean fuel) OR LDO</b> in our premises.</p>   | --  | --  |
| vi) | Best Available Technology may be used. For example; usage of EAF/SAF/IF in place of Cupola furnace. Usage of Supercritical technology in place of | <p><b>Complied</b></p> <p>➤ <b>Domestic Wastewater:</b> Domestic waste water will be treated in STP and then treated water will be reused in gardening. By this process, They will reduce fresh domestic water.</p> <p>➤ <b>Industrial Wastewater:</b> Total waste water generated from process will be treated in solvent stripper. Then treated water from solvent stripper will be treated in in-house MEE. MEE condensate will be treated in in-house ETP (Primary + Secondary + Tertiary) along with waste water from Boiler &amp; Cooling. Mother Liquor from MEE will be sent to in-house <b>Agitated Thin Film Dryer (ATFD)</b> and dry salt will be sent to nearest TSDF site. Treated wastewater from ETP will be reused for industrial purpose and ETP Sludge will be sent to TSDF site.</p>   | The installation of ETP Units (Primary, Secondary, Tertiary treatment units), MEE, <b>Agitated Thin Film Dryer (ATFD)</b> , Solvent Stripper, STP & | <ul style="list-style-type: none"> <li>• 125.0 Lacs for Water Pollution Control &amp; prevention Measures</li> <li>• 10.0 Lacs for air Pollution</li> </ul> |

|        |  |   |  |   |
|--------|--|---|--|---|
|        | sub-critical technology.   | <p><b>Hence, by this technology we can reduce the freshwater requirement.</b></p> <ul style="list-style-type: none"> <li>➤ <b>Air pollution control measures (APCM):</b> They have proposed adequate stack height to control emissions of SO<sub>2</sub>, NO<sub>x</sub> &amp; PM within the permissible limit.</li> <li>➤ <b>Fuel for utility:</b> LDO/Natural gas will be used for Boiler &amp; TFH instead of solid fuel (coal, pet-coke etc.). It is a clean fuel and has high calorific value. We get desired temperature for process instantly. It requires less foot print. We can also reduce the handling cost, space and manpower for feeding the coal to utility.</li> <li>➤ <b>Hazardous / Solid Waste:</b> Unit shall Explore the possibilities for environment friendly methods like co-processing &amp; reusing of hazardous waste for disposal of incinerable &amp; land fillable wastes before sending to CHWIF &amp; TSDF site respectively.</li> </ul> | APCMs (Adequate Stack height) will be done before the commencement of the expansion project. | Control & Prevention.<br><br>• 8.5 Lacs for Green belt Development Plant. |
| vi i)  | Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever feasible.           | <p>Out of total project area (3467.50 sq. m.) 40.0 % area i.e., 1387.0 sq. m. (1143 sq. m. existing + 244 sq. m. proposed) area will be developed within plant premises and Adjacent Boundary (north direction i.e 160 sq. m ) to plant. About total 347 trees (286 Nos. Existing + 61 Nos. Proposed) will be planted in the green belt area.</p> <p><b>Greenbelt development plan is submitted.</b></p>  | Within a year of commencement of the expansion project.                                      | • 8.5 Lacs for Green belt Development Plant.                              |
| viii ) | Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc. |   |  |   |
| ix )   | Assessment of carrying capacity of transportation load on roads inside the industrial premises. If the roads required to           | They will develop RCC road (in periphery of the plot area of 4.0 mtr. With adequate turning radius) in our premises even though we frequently sprinkle the water on road to avoid the dusting due to vehicular movement.  | RCC Roads will be developed before commencement of the expansion project.                    | --  |

|                                 |   |   |   |  |
|---------------------------------|---|---|---|--|
|                                 | be widened, shall be prescribed as a condition.         |   |   |  |
| <b><u>WATER ENVIRONMENT</u></b> |   |   |   |  |
| i)                              | Reuse/recycle of treated wastewater, wherever feasible. | <p><b>Complied</b></p> <p>• <b>During Non-Monsoon Period:</b><br/>Total water Requirement of the proposed project will be <b>19.0 KLD</b>. Reuse/recycle qty. will be <b>8.65 KLD</b>. Hence, Fresh water requirement will be <b>10.35 KLD</b>.</p> <p>• <b>During Monsoon Period:</b><br/>Total water Requirement of the proposed project will be <b>17.0 KLD</b>. Reuse/recycle qty. will be <b>8.65 KLD</b>. Additionally, <b>1.0 KLD</b> rain water will be used. Hence, Fresh water requirement from MIDC will be reduced from <b>17.0 KLD</b> to <b>7.35 KLD</b>.</p> | The installation of ETP Units (Primary, Secondary, Tertiary treatment units), MEE, <b>Agitated Thin Film Dryer (A TFD)</b> , Solvent Stripper, STP will be done before the commencement of the expansion production. The installation of rainwater harvesting tank will be done before the commencement of the expansion project. | 125.0 Lacs for Water Pollution Control & prevention Measures.<br><br>1.2 Lacs for Rainwater Harvesting structure installation. |
| ii)                             | Continuous monitoring of effluent quality/quantity in   | Unit falls under small scale industry (SSI). So, this condition is not applicable. However, they have proposed installation of Flow meter & PTZ camera at reuse line and its connectivity will provide to CPCB and MPCB server.   | Installation of Flow meter & PTZ camera   |  |

|                |   |   |  |   |                                |
|----------------|---|---|--|---|--------------------------------|
|                | large and medium Red Category Industries (water polluting).                 |   | will be done before the commencement of the expansion project.   |   |                                |
| iii )          | A detailed water harvesting plan may be submitted by the project proponent. | <b>Complied.</b><br>They have proposed to install Rainwater harvesting structure to collect rooftop rainwater to reduce fresh water consumption. Approx. 92.0 m <sup>3</sup> /yr rainwater will be harvested during monsoon season for which 10.0 KL X 1 Nos. underground RCC water storage tank will be provided. Storage Tank dimension will be - 3.0 mtr X 3.0 mtr X 1.2 mtr (depth). Stored rain water will be used in domestic, industrial activities etc after necessary pre-treatment. | The installation of rainwater harvesting tank will be done before the commencement of the Proposed expansion project.  | • 1.2 Lacs for Rainwater Harvesting structure.                  |                                |
| iv )           | Zero-liquid-discharge-wherever-techno-economically feasible.                | In proposed project, they will install in-house ETP along with in-house solvent stripper, MEE and <b>Agitated Thin Film Dryer (ATFD)</b> to achieve <b>Zero Liquid Discharge (ZLD)</b> . Treated water quality is feasible to reuse in Industrial activities.   | The installation of ETP Units (Primary, Secondary, Tertiary treatment units), MEE, <b>Agitated Thin Film Dryer (ATFD)</b> , Solvent Stripper will be done before the commencement of the expansion production. Installation of STP system will be done before the commencement of the project. | • 125.0 Lacs for Water Pollution Control & prevention Measures. |                                |
| <b>Sr. No.</b> | <b>Parameter</b>  | <b>Unit</b>   | <b>Manufacturing process (VE CAPS)</b>   | <b>After Solvent stripper (MEE Inlet)</b>                       | <b>MEE Condensate (To ETP)</b> |
| Quantity (KLD) |   |   | 5.9  | 5.72  | 4.52                           |
| 1              | pH  | pH Unit   | 6.5-7.5  | 6.5-7.5   | 6.5-7.5                        |
| 2              | TSS   | mg/L  | 178  | 180   | 81                             |
| 3              | TDS   | mg/L  | 14340  | 14360   | 716                            |
| 4              | BOD   | mg/L  | 2150   | 1061  | 955                            |
| 5              | COD   | mg/L  | 12650  | 5032  | 3019                           |
| <b>Sr. No.</b> | <b>Parameter</b>  | <b>Unit</b>   | <b>Stream from other utilities and process waste water Characteristics</b>   |   | <b>Combine Effluent @1</b>     |
| Quantity (KLD) |   |   | <b>Boiler</b>  | <b>Cooling</b>  |                                |
| Quantity (KLD) |   |   | 0.5  | 1.3   | 1.8                            |
| 1              | pH  | pH Unit   | 6-8  | 6-8   | 6.5-7.5                        |
| 2              | TSS   | mg/L  | 56   | 87  | 85                             |
| 3              | TDS   | mg/L  | 600  | 1100  | 1064                           |
| 4              | BOD   | mg/L  | 10   | 15  | 15                             |
| 5              | COD   | mg/L  | 30   | 48  | 47                             |



| iii)   | Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by SPCBs/PCCs.       | <p><b>Not applicable.</b></p> <p>They have proposed LDO/Natural gas (Clean Fuel) for proposed Boiler &amp; Thermic Fluid heater. <b>Hence, there will be no generation of High volume – Low effect wastes i.e., fly-ash, slag, red-mud, de-inking sludge etc.</b></p>  | --       | --                           |  |  |  |                  |          |          |       |    |          |   |    |    |   |    |            |   |     |     |   |    |          |   |    |    |    |                      |   |    |    |  |    |               |   |     |     |   |                                       |   |
|--------|---|--|----------|------------------------------|--|--|--|------------------|----------|----------|-------|----|----------|---|----|----|---|----|------------|---|-----|-----|---|----|----------|---|----|----|----|----------------------|---|----|----|--|----|---------------|---|-----|-----|---|---------------------------------------|---|
| iv)    | More stringent norms for management of hazardous waste. The waste generated should be preferably utilized in Co-processing. | <p><b>Complied.</b></p> <p>They will strictly follow Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 for dispose of hazardous wastes. We will explore possibility to dispose its hazardous wastes through co-processing, pre-processing to the extent possible prior its disposal to incineration/ landfill.</p> <ul style="list-style-type: none"> <li>➤ Hazardous waste like used oil will be collected in a leak proof containers &amp; disposed only to MPCB registered authorized re-processors provided the oil meets the standards as per schedule-5 part A of the rules.</li> <li>➤ Hazardous waste like ETP Sludge &amp; MEE Salt will be sent to TSDF.</li> <li>➤ Hazardous waste like Distillation Residue, Spent Solvents &amp; Spent Salts Shall be store in a secured manner &amp; handed over to MPCB authorized incinerators (CHWIF) /co-processing in cement kiln. Shall be collected in a leak proof containers &amp; disposed as per rule 9.</li> <li>➤ Hazardous waste like Spent Catalyst will be sent to pre/co-processing units (cement industries) OR disposal at nearest CHWIF site.</li> </ul> <table border="1" data-bbox="347 1301 1177 2056"> <thead> <tr> <th rowspan="2">Sr. No</th> <th rowspan="2">Type/Name of Hazardous waste</th> <th colspan="3">Quantity (MT/Year)</th> <th rowspan="2">Management of HW</th> </tr> <tr> <th>Existing</th> <th>Proposed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Used Oil</td> <td>0</td> <td>10</td> <td>10</td> <td>Collection, Storage in a leak proof containers &amp; disposed only to MPCB registered authorized re-processors.</td> </tr> <tr> <td>2.</td> <td>ETP Sludge</td> <td>0</td> <td>100</td> <td>100</td> <td rowspan="2">Collection, Storage in a secured manner and Disposal at authorized TSDF site.</td> </tr> <tr> <td>3.</td> <td>MEE Salt</td> <td>0</td> <td>73</td> <td>73</td> </tr> <tr> <td>4.</td> <td>Distillation Residue</td> <td>0</td> <td>80</td> <td>80</td> <td>Collection, Storage, Transportation &amp; send to pre/co-processing units (cement industries) OR disposal at nearest CHWIF site.</td> </tr> <tr> <td>5.</td> <td>Spent Solvent</td> <td>0</td> <td>495</td> <td>495</td> <td>Collection, Storage, Handling recovered &amp; recycled by Solvent</td> </tr> </tbody> </table> | Sr. No   | Type/Name of Hazardous waste | Quantity (MT/Year)   |  |  | Management of HW | Existing | Proposed | Total | 1. | Used Oil | 0 | 10 | 10 | Collection, Storage in a leak proof containers & disposed only to MPCB registered authorized re-processors. | 2. | ETP Sludge | 0 | 100 | 100 | Collection, Storage in a secured manner and Disposal at authorized TSDF site. | 3. | MEE Salt | 0 | 73 | 73 | 4. | Distillation Residue | 0 | 80 | 80 | Collection, Storage, Transportation & send to pre/co-processing units (cement industries) OR disposal at nearest CHWIF site. | 5. | Spent Solvent | 0 | 495 | 495 | Collection, Storage, Handling recovered & recycled by Solvent | Since commencement of the production. | 21.0 for Hazardous Waste Management & Disposal. |
| Sr. No | Type/Name of Hazardous waste  | Quantity (MT/Year)   |          |                              | Management of HW   |  |  |                  |          |          |       |    |          |   |    |    |   |    |            |   |     |     |   |    |          |   |    |    |    |                      |   |    |    |  |    |               |   |     |     |   |                                       |   |
|        |   | Existing   | Proposed | Total                        |  |  |  |                  |          |          |       |    |          |   |    |    |   |    |            |   |     |     |   |    |          |   |    |    |    |                      |   |    |    |  |    |               |   |     |     |   |                                       |   |
| 1.     | Used Oil  | 0  | 10       | 10                           | Collection, Storage in a leak proof containers & disposed only to MPCB registered authorized re-processors.                  |  |  |                  |          |          |       |    |          |   |    |    |   |    |            |   |     |     |   |    |          |   |    |    |    |                      |   |    |    |  |    |               |   |     |     |   |                                       |   |
| 2.     | ETP Sludge  | 0  | 100      | 100                          | Collection, Storage in a secured manner and Disposal at authorized TSDF site.  |  |  |                  |          |          |       |    |          |   |    |    |   |    |            |   |     |     |   |    |          |   |    |    |    |                      |   |    |    |  |    |               |   |     |     |   |                                       |   |
| 3.     | MEE Salt  | 0  | 73       | 73                           |  |  |  |                  |          |          |       |    |          |   |    |    |   |    |            |   |     |     |   |    |          |   |    |    |    |                      |   |    |    |  |    |               |   |     |     |   |                                       |   |
| 4.     | Distillation Residue  | 0  | 80       | 80                           | Collection, Storage, Transportation & send to pre/co-processing units (cement industries) OR disposal at nearest CHWIF site. |  |  |                  |          |          |       |    |          |   |    |    |   |    |            |   |     |     |   |    |          |   |    |    |    |                      |   |    |    |  |    |               |   |     |     |   |                                       |   |
| 5.     | Spent Solvent   | 0  | 495      | 495                          | Collection, Storage, Handling recovered & recycled by Solvent  |  |  |                  |          |          |       |    |          |   |    |    |   |    |            |   |     |     |   |    |          |   |    |    |    |                      |   |    |    |  |    |               |   |     |     |   |                                       |   |

|                                     |   |   |                            |                       |                                     |   |  |                                |
|-------------------------------------|---|---|----------------------------|-----------------------|-------------------------------------|---|--|--------------------------------|
|                                     |   |   |                            |                       |                                     | Distillation Plant within premises OR Sell to End Users having permission under Rule-9, through GPS mounted vehicles.       |  |                                |
|                                     |   | 6.  | 0                          | 66                    | 66                                  | Collection, Storage, & Recover by stripper & send to pre/co processing unit OR send to CHWIF, through GPS mounted vehicles. |  |                                |
|                                     |   | 7.  | Process Residue and wastes | 0                     | 446                                 | 446   | Collection, Storage in a secured manner and Disposal at authorized TSDF site.  |                                |
|                                     |   | 8.  | Spent Catalyst             | 0                     | 97                                  | 97  | Collection, Storage, Transportation & send to pre/co-processing units (cement industries) OR disposal at nearest CHWIF site. |                                |
| <b>OTHER CONDITION (ADDITIONAL)</b> |   |   |                            |                       |                                     |   |  |                                |
| i)                                  | Monitoring of compliance of EC conditions may be submitted with third party audit every year.   | <b>Noted and will be complied.</b><br>After obtaining EC for proposed expansion project, we will submit report of compliance of the conditions of EC every year to the Board prepared by third party.               |                            |                       |                                     |   | At Interval of 6 months after getting EC From EAC.   | --                             |
| ii)                                 | The % of the CER may be at least 1.5 times the slabs given in the OM dated 01.05.2018 for SPA and 2 times for CPA in case of Environmental Clearance. | We will allocate fund for CER two times that is 2% of the total project cost as per given in the OM dated 01.05.2018 in our proposed project.<br><br>Estimated Budget For CER:<br>Project cost: <b>5.85 Crores.</b> |                            |                       |                                     |   | Within 2 years of commencement of the project.   | 12.0 Lakhs for CER Activities. |
|                                     |   | <b>Component</b>  |                            | <b>As per Norms</b>   |                                     | <b>Allocation</b>   |  |                                |
|                                     |   | CER   |                            | Rs. 12.0 lacs (2.0 %) |                                     | Rs. 12.0 lacs (2.0 %)   |  |                                |
|                                     |   | <b>Activities<br/>(On basis of Needs Assessment)</b>  |                            |                       | <b>Phase Wise Budget<br/>(Lakh)</b> |   |  |                                |
|                                     |   |   |                            |                       | <b>1st<br/>Year</b>                 | <b>2nd Year</b>   | <b>TOTAL</b>   |                                |
|                                     |   | <ul style="list-style-type: none"> <li>• <b>Avenue Plantation</b><br/>Plantation around location area as Navapur village- cost of 1 plant- 2000/- with maintenance for 2 year (200 plants).</li> </ul>              |                            |                       | <b>2.0</b>                          | <b>2.0</b>  | <b>4.0</b>   |                                |
|                                     |   | <ul style="list-style-type: none"> <li>• <b>Solar Energy Utilization</b><br/>Installation of 17.0 kw rooftop solar system at Primary Government School,</li> </ul>  |                            |                       | <b>4.0</b>                          | <b>4.0</b>  | <b>8.0</b>   |                                |

|  |   |                              |  |  |  |  |
|--|---|------------------------------|--|--|--|--|
|  | Grampanchayat, Aanganwadi @ Pam Village |                              |  |  |  |  |
|  | <b>Total Cost</b>                       | <b>Approx. INR 12.0 Lakh</b> |  |  |  |  |

- PP submitted revise water balance diagram after removing 7.3 KLD wastewater of other two sister concern units of Nikita group of Companies as ETP of M/s. VE Caps LLP is under planning stage. Total proposed wastewater stream 5.9 KLD generated from Process will be treated in Solvent Stripper. Solvent residue from stripper will be sent to nearest CHWIF site. Treated water from solvent stripper will be sent to MEE for further reduction of TDS and COD. MEE condensate will be sent to ETP for further treatment.
- **Stream 2@** Low TDS and COD wastewater from Boiler and Cooling @ 1.8 KLD alongwith MEE condensate @ 4.52 KLD will be treated in in-house ETP (Primary + Secondary + Tertiary). Treated water from ETP will be reused within premises. ETP Sludge will be sent to nearest TSDF site. Mother Liquor from MEE will be sent to in-house **Agitated Thin Film Dryer (ATFD)** and dry salt will be sent to nearest TSDF site.
- Stream 3@ Total domestic waste water: The Committee suggested to treat the domestic wastewater in the Modular STP. After expansion, total proposed (Existing + Proposed) domestic wastewater 1.6 KLD will be treated in STP and will be reused within premises for gardening purpose.
- PP submitted commitment towards submission of safety report as per MSIHC rules 1989 to Chief inspector of industries for storage of Hazardous Chemicals for expansion.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC constituted under the provisions of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the PP in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/NABET on behalf of the PP.

The EAC noted that the PP has given an undertaking to the effect that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

The EAC noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The EAC deliberated the Onsite and Offsite Emergency plans and also the various mitigation measures proposed during the implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, as amended from time to time.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for the grant of environmental clearance.

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

23. The EAC, after detailed deliberations, **recommended the project for the grant of environmental clearance, subject to the compliance of the terms and conditions as under, and general terms and conditions in Annexure-I:**

- (i) Stack of adequate height shall be provided to LDO /gas fired steam boiler, LDO /gas fired thermopack and DG set as per CPCB norms.
- (ii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB. Odour management plan shall be implemented.
- (iii) The total fresh water requirement from MIDC water supply shall not exceed 10.35 KLD.
- (iv) NOC from the Concerned Local authority shall be obtained before start of the construction of plant and drawing of the MIDC water supply for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (v) Effluent generation shall not exceed 9.3 KLD of which industrial effluent generation shall be 7.7 KLD and sewage shall be 1.6 KLD. Total industrial effluent generated from process shall be treated in solvent stripper. Then treated water from solvent stripper shall be treated in in-house MEE. MEE condensate shall be treated in in-house ETP (Primary + Secondary + Tertiary) alongwith wastewater from Boiler & Cooling. Mother Liquor from MEE shall be sent to in-house Agitated Thin Film Dryer (ATFD) and dry salt shall be sent to nearest TSDF site. Treated wastewater from ETP shall be reused for industrial purpose and ETP Sludge shall be sent to TSDF site. Treated effluent shall be recycled/reused for cooling tower make up. Total proposed (Existing + Proposed) domestic wastewater 1.6 KLD shall be treated in STP and shall be reused within premises for gardening purpose.
- (vi) The PP shall develop/maintain 5-10 m thick greenbelt over an area of 40.0 % area i.e., 1387.0 sq. m. (1143 sq. m. existing + 244 sq. m. proposed) area shall be developed within plant premises and Adjacent Boundary to plant in south direction, preferably within one year of grant of EC. In addition to this, PP shall develop plantation at Navapur village at aerial distance 3.70 km from the project site over an area of 1.5 Acre. Permission for the same has been obtained from Navapur gram panchayat. The number of saplings shall be planted and should be of sufficient height, preferably 6-ft. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP should annually submit the audited statement along with proof of activities viz. photographs

(before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

- (vii) 10.0 KL X 1 Nos. underground RCC water storage tank shall be provided. Storage Tank dimension shall be - 3.0 mtr X 3.0 mtr X 1.2 mtr (depth). Stored rain water shall be used in domestic, industrial activities etc after necessary pre-treatment.
- (viii) All the hazardous waste shall be managed and disposed as per the HWM Rules 2016. Hazardous waste such as Distillation Residue and Off Specification Products shall be either send to common incineration site or send for coprocessing. Solid waste shall be segregated into dry and wet garbage at site in accordance to the Solid Waste Management Rules, 2016. Wet waste shall be converted into compost and used as manure for greenbelt development.
- (ix) Monitoring of the compliance of EC conditions shall be submitted with third party audit every year.
- (x) As proposed, an amount of ₹ 12 lakhs shall be allocated towards CER.
- (xi) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage Unit Head + EHS cluster Head- Sr. Manager EHS- Assistant manager EHS- Executive officer EHS- ETP incharge- MEE incharge- Fireman- ETP operator- MEE operator. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1<sup>st</sup> July of every year for the activities carried out during previous year.
- (xii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is ₹ 155 Lakhs (Capital cost) and Rs. 6.2 Lakhs per Annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1<sup>st</sup> July of every year for the activities carried out during previous year.
- (xiii) No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.
- (xiv) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- (xv) The project proponent shall comply with the environment norms for synthetic organic chemical as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 608 (E), dated 21. 7.2010 under the provisions of the Environment (Protection) Rules, 1986.

- (xvi) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The occupier of new as well as expansion projects shall be required to comply with the provisions of the MSHIC Rules, 1989 including notifying their activities or seeking site approval from the concerned authorities, to address operational safety aspects. In doing so, various schedule, particularly Schedule-5 of the said rules may be referred.
- (xvii) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.
- (xviii) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.
- (xix) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xx) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.
- (xxi) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (xxii) The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (xxiii) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.
- (xxiv) As proposed, PP shall comply with the following mitigation measures as Per Ministry's Office Memorandum 31st October, 2019 regarding Projects located in Critically Polluted Area:

| SR. NO.                       | MITIGATION MEASURES AS PER OM | REMARKS | TIMELINE | FUND ALLOCATION (Rs. in LAKHS) |
|-------------------------------|-------------------------------|---------|----------|--------------------------------|
| <b><u>AIR ENVIRONMENT</u></b> |                               |         |          |                                |

| i)     | <p>Stack emission levels should be stringent than the existing standards in terms of the identified critical pollutants.</p> <p>As per the notification, we will comply with the stringent air pollutants standards i.e., 80 % of proposed flue gas standards due to installation of proposed APCM like Adequate Stack Height for flue gas emission.</p> <p>Type of fuel details &amp; source of emissions are mentioned in below table:</p> <p><b>Proposed Flue Gas emission &amp; APCM details:</b></p> <table border="1" data-bbox="331 456 1177 1581"> <thead> <tr> <th>Sr. no</th> <th>Source of emission with capacity</th> <th>Stack Height (meter)</th> <th>Type of Fuel</th> <th>Type of Emissions i.e., Air Pollutants</th> <th>APC M</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Steam Boiler (500 kg/hr.) (Existing)</td> <td>13</td> <td>LDO OR Natural Gas</td> <td rowspan="4">PM&lt;120 mg/Nm3<br/>SO2&lt;80 ppm<br/>NOx&lt;40 ppm</td> <td>Adequate Stack Height</td> </tr> <tr> <td>2</td> <td>Thermopack (6 Lac K Cal per hr.) (Existing)</td> <td>13</td> <td>LDO OR Natural Gas</td> <td>Adequate Stack Height</td> </tr> <tr> <td>3</td> <td>Thermopack (10 Lac K Cal per hr.) (Proposed)</td> <td>22</td> <td>LDO OR Natural Gas</td> <td>Adequate Stack Height</td> </tr> <tr> <td>4</td> <td>D.G. set (125 KVA) (Existing)</td> <td>3 m Above Roof</td> <td>Diesel</td> <td>Adequate Stack Height</td> </tr> </tbody> </table> <p><b>Proposed Process Gas emission &amp; APCM details:</b></p> <table border="1" data-bbox="347 1648 1161 1832"> <thead> <tr> <th>Sr. no</th> <th>Source of emission</th> <th>Type of Emission with permissible limit</th> <th>Stack/vent Height (meter)</th> <th>APCM</th> </tr> </thead> <tbody> <tr> <td>1</td> <td colspan="4">No any Process gas emission from Existing and Proposed manufacturing.</td> </tr> </tbody> </table> <p><i>*Note: There will be continuous monitoring of APCM proposed for flue gas.</i></p> | Sr. no                                   | Source of emission with capacity | Stack Height (meter)                      | Type of Fuel          | Type of Emissions i.e., Air Pollutants | APC M | 1 | Steam Boiler (500 kg/hr.) (Existing) | 13 | LDO OR Natural Gas | PM<120 mg/Nm3<br>SO2<80 ppm<br>NOx<40 ppm | Adequate Stack Height | 2 | Thermopack (6 Lac K Cal per hr.) (Existing) | 13 | LDO OR Natural Gas | Adequate Stack Height | 3 | Thermopack (10 Lac K Cal per hr.) (Proposed) | 22 | LDO OR Natural Gas | Adequate Stack Height | 4 | D.G. set (125 KVA) (Existing) | 3 m Above Roof | Diesel | Adequate Stack Height | Sr. no | Source of emission | Type of Emission with permissible limit | Stack/vent Height (meter) | APCM | 1 | No any Process gas emission from Existing and Proposed manufacturing. |  |  |  | <p>Installation of APCMs (Adequate Stack height) will be done before the commencement of the project.</p> <p>The stringent air pollutants standards i.e., 80 % of proposed flue gas emission standards norms will be achieved by APCMs (Adequate Stack height) and it will be continuously monitored and reported to regulatory authorities</p> | 10.0 Lacs for air Pollution Control & Prevention |
|--------|--|--|----------------------------------|---|-----------------------|--|-------|---|--------------------------------------|----|--------------------|---|-----------------------|---|---|----|--------------------|-----------------------|---|--|----|--------------------|-----------------------|---|-------------------------------|----------------|--------|-----------------------|--------|--------------------|---|---------------------------|------|---|---|--|--|--|---|--|
| Sr. no | Source of emission with capacity   | Stack Height (meter)                     | Type of Fuel                     | Type of Emissions i.e., Air Pollutants    | APC M                 |  |       |   |                                      |    |                    |   |                       |   |   |    |                    |                       |   |  |    |                    |                       |   |                               |                |        |                       |        |                    |   |                           |      |   |   |  |  |  |   |  |
| 1      | Steam Boiler (500 kg/hr.) (Existing)   | 13                                       | LDO OR Natural Gas               | PM<120 mg/Nm3<br>SO2<80 ppm<br>NOx<40 ppm | Adequate Stack Height |  |       |   |                                      |    |                    |   |                       |   |   |    |                    |                       |   |  |    |                    |                       |   |                               |                |        |                       |        |                    |   |                           |      |   |   |  |  |  |   |  |
| 2      | Thermopack (6 Lac K Cal per hr.) (Existing)  | 13                                       | LDO OR Natural Gas               |   | Adequate Stack Height |  |       |   |                                      |    |                    |   |                       |   |   |    |                    |                       |   |  |    |                    |                       |   |                               |                |        |                       |        |                    |   |                           |      |   |   |  |  |  |   |  |
| 3      | Thermopack (10 Lac K Cal per hr.) (Proposed)   | 22                                       | LDO OR Natural Gas               |   | Adequate Stack Height |  |       |   |                                      |    |                    |   |                       |   |   |    |                    |                       |   |  |    |                    |                       |   |                               |                |        |                       |        |                    |   |                           |      |   |   |  |  |  |   |  |
| 4      | D.G. set (125 KVA) (Existing)  | 3 m Above Roof                           | Diesel                           |   | Adequate Stack Height |  |       |   |                                      |    |                    |   |                       |   |   |    |                    |                       |   |  |    |                    |                       |   |                               |                |        |                       |        |                    |   |                           |      |   |   |  |  |  |   |  |
| Sr. no | Source of emission   | Type of Emission with permissible limit  | Stack/vent Height (meter)        | APCM                                      |                       |  |       |   |                                      |    |                    |   |                       |   |   |    |                    |                       |   |  |    |                    |                       |   |                               |                |        |                       |        |                    |   |                           |      |   |   |  |  |  |   |  |
| 1      | No any Process gas emission from Existing and Proposed manufacturing.  |  |                                  |   |                       |  |       |   |                                      |    |                    |   |                       |   |   |    |                    |                       |   |  |    |                    |                       |   |                               |                |        |                       |        |                    |   |                           |      |   |   |  |  |  |   |  |
| ii)    | <p>CEMS may be installed in all large/medium red</p> <p>The proposed unit is falls under small scale category. However, we have proposed installation and Commencement of <b>Continuous Emission Monitoring System- CEMS (as per CPCB guidelines for relevant parameters).</b></p>   | <p>Installation of CEMS will be done</p> |                                  |   |                       |  |       |   |                                      |    |                    |   |                       |   |   |    |                    |                       |   |  |    |                    |                       |   |                               |                |        |                       |        |                    |   |                           |      |   |   |  |  |  |   |  |

|       |   |  |   |    |
|-------|---|--|---|----|
|       | category industries (air polluting) and connected to SPCB and CPCB server.                                  |  | before the commencement of the expansion project.   |    |
| iii ) | Effective fugitive emission control measures should be imposed in the process, transportation, packing etc. | <p>Source of fugitive emissions are loading and unloading section, material handling and transfer points, roads and transportation of vehicles.</p> <p>Proposed measures to control fugitive emission:</p> <ul style="list-style-type: none"> <li>• All reactors, treatment vessels, agitator and process pumps shall be mechanically sealed as per requirement.</li> <li>• All process pumps shall be provided trays to collect probable leakage.</li> <li>• More weight age on selection of MOC of piping shall be given to avoid leakage/spillage.</li> </ul>   | Paved Road, dedusting system, Greenbelt development, APCM (Adequate Stack height) installation etc. will be done before the commencement of the proposed expansion project. |    |
| iv )  | Transportation of materials by rail/conveyor belt, wherever feasible.                                       | <ul style="list-style-type: none"> <li>• Overflow system with return line to day tank/storage tank from batch tank will be provided to prevent hazardous material overflow.</li> <li>• De-dusting system will be provided at solid product bagging area.</li> <li>• Proper system shall be provided for decontamination and effective cleaning of drums.</li> <li>• All transfer points shall be fully enclosed.</li> <li>• Airborne dust shall be controlled.</li> <li>• All roads shall be paved on which movement of raw materials or products will take place.</li> <li>• Maintenance of air pollution control equipment shall be done regularly.</li> <li>• All the workers shall be provided with dust mask.</li> <li>• Green belt will be developed around the plant to arrest the fugitive emissions.</li> <li>• Whole process is/will be carried out in close loop.</li> <li>• Pipe line is/will be having minimum flange.</li> <li>• Proper ventilation is/will be provided.</li> <li>• No use of any Solid fuel. Is/will use only LDO OR Natural gas as fuel.</li> <li>• Raw materials are/will be stored in the covered area only.</li> <li>• Good housekeeping, proper maintenance and continuous observation is/will carry out to prevent the chances of any fugitive emission from process area.</li> <li>• Water sprinkling for dust suppression which reduce up to 30-40% pollution.</li> </ul> |   |    |
| v)    | Encourage use of cleaner fuels (pet coke/ furnace oil/ LSHS may   | They will not use Pet-coke, furnace oil, LSHS as a fuel. They will only use <b>Natural Gas (clean fuel) OR LDO</b> in our premises.  | --  | -- |

|        |  |   |  |   |
|--------|--|---|--|---|
|        | be avoided).   |   |  |   |
| vi )   | Best Available Technology may be used. For example; usage of EAF/SAF/IF in place of Cupola furnace. Usage of Supercritical technology in place of sub-critical technology. | <p>➤ <b>Domestic Wastewater:</b> Domestic waste water will be treated in STP and then treated water will be reused in gardening. By this process, They will reduce fresh domestic water.</p> <p>➤ <b>Industrial Wastewater:</b> Total waste water generated from process will be treated in solvent stripper. Then treated water from solvent stripper will be treated in in-house MEE. MEE condensate will be treated in in-house ETP (Primary + Secondary + Tertiary) along with waste water from Boiler &amp; Cooling. Mother Liquor from MEE will be sent to in-house <b>Agitated Thin Film Dryer (ATFD)</b> and dry salt will be sent to nearest TSDF site. Treated wastewater from ETP will be reused for industrial purpose and ETP Sludge will be sent to TSDF site.</p> <p><b>Hence, by this technology we can reduce the freshwater requirement.</b></p> <p>➤ <b>Air pollution control measures (APCM):</b> They have proposed adequate stack height to control emissions of SO<sub>2</sub>, NO<sub>x</sub> &amp; PM within the permissible limit.</p> <p>➤ <b>Fuel for utility:</b> LDO/Natural gas will be used for Boiler &amp; TFH instead of solid fuel (coal, pet-coke etc.). It is a clean fuel and has high calorific value. We get desired temperature for process instantly. It requires less foot print. We can also reduce the handling cost, space and manpower for feeding the coal to utility.</p> <p>➤ <b>Hazardous / Solid Waste:</b> Unit shall Explore the possibilities for environment friendly methods like co-processing &amp; reusing of hazardous waste for disposal of incinerable &amp; land fillable wastes before sending to CHWIF &amp; TSDF site respectively.</p> | The installation of ETP Units (Primary, Secondary, Tertiary treatment units), MEE, <b>Agitated Thin Film Dryer (ATFD)</b> , Solvent Stripper, STP & APCMs (Adequate Stack height) will be done before the commencement of the expansion project. | <ul style="list-style-type: none"> <li>• 125.0 Lacs for Water Pollution Control &amp; prevention Measures</li> <li>• 10.0 Lacs for air Pollution Control &amp; Prevention.</li> <li>• 8.5 Lacs for Green belt Development Plant.</li> </ul> |
| vi i)  | Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever feasible.   | Out of total project area (3467.50 sq. m.) 40.0 % area i.e., 1387.0 sq. m. (1143 sq. m. existing + 244 sq. m. proposed) area will be developed within plant premises and Adjacent Boundary ( north direction i.e 160 sq. m ) to plant. About total 347 trees (286 Nos. Existing + 61 Nos. Proposed) will be planted in the green belt area.   | Within a year of commencement of the expansion project.  | • 8.5 Lacs for Green belt Development Plant.  |
| viii ) | Stipulation of greenbelt outside the project premises such as avenue   | <b>Greenbelt development plan is submitted .</b>  |  |   |

|      |  |  |   |    |
|------|--|--|---|----|
|      | plantation, plantation in vacant areas, social forestry, etc.  |  |   |    |
| ix ) | Assessment of carrying capacity of transportation load on roads inside the industrial premises. If the roads required to be widened, shall be prescribed as a condition. | They will develop RCC road (in periphery of the plot area of 4.0 mtr. With adequate turning radius) in our premises even though we frequently sprinkle the water on road to avoid the dusting due to vehicular movement. | RCC Roads will be developed before commencement of the expansion project. | -- |

#### WATER ENVIRONMENT

|    |   |  |  |  |
|----|---|--|--|--|
| i) | Reuse/recycle of treated wastewater, wherever feasible. | <p>• <b>During Non-Monsoon Period:</b><br/>Total water Requirement of the proposed project will be <b>19.0 KLD</b>. Reuse/recycle qty. will be <b>8.65 KLD</b>. Hence, Fresh water requirement will be <b>10.35 KLD</b>.</p> <p>• <b>During Monsoon Period:</b><br/>Total water Requirement of the proposed project will be <b>17.0 KLD</b>. Reuse/recycle qty. will be <b>8.65 KLD</b>. Additionally, <b>1.0 KLD</b> rain water will be used. Hence, Fresh water requirement from MIDC will be reduced from <b>17.0 KLD</b> to <b>7.35 KLD</b>.</p> | The installation of ETP Units (Primary, Secondary, Tertiary treatment units), MEE, <b>Agitated Thin Film Dryer (A TFD)</b> , Solvent Stripper, STP will be done before the commencement of the expansion production. The installation rainwater harvesting | 125.0 Lacs for Water Pollution Control & prevention Measures.<br><br>1.2 Lacs for Rainwater Harvesting structure installation. |
|----|---|--|--|--|



|                         |  |   |   |                         |                     |   |  |  |
|-------------------------|--|---|---|-------------------------|---------------------|---|--|--|
| 4                       | BOD  | mg/L  | 2150  | 1061                    | 955                 | will be done before the commencement of the expansion production. Installation of STP system will be done before the commencement of the project. |  |  |
| 5                       | COD  | mg/L  | 12650   | 5032                    | 3019                |   |  |  |
| Sr. No.                 | Parameter  | Unit  | Stream from other utilities and process waste water Characteristics |                         | Combine Effluent @1 |   |  |  |
|                         |  |   | Boiler  | Cooling                 |                     |   |  |  |
| Quantity (KLD)          |  |   | 0.5   | 1.3                     | 1.8                 |   |  |  |
| 1                       | pH   | pH Unit   | 6-8   | 6-8                     | 6.5-7.5             |   |  |  |
| 2                       | TSS  | mg/L  | 56  | 87                      | 85                  |   |  |  |
| 3                       | TDS  | mg/L  | 600   | 1100                    | 1064                |   |  |  |
| 4                       | BOD  | mg/L  | 10  | 15                      | 15                  |   |  |  |
| 5                       | COD  | mg/L  | 30  | 48                      | 47                  |   |  |  |
| SR. No.                 | Parameter  | Unit  | Combine Effluent @1   | MEE Condensate (To ETP) | Combine Effluent @2 | After Primary Treatment   | After Secondary Treatment (Will be sent to Tertiary treatment) |  |
|                         |  |   |   |                         |                     |   | Quantity (KLD)   | 2  |
| 1                       | pH   | pH Unit   | 6.5-7.5   | 6.5-7.5                 | 6.5-7.5             | 6.5-7.5   | 6.5-7.5  |  |
| 2                       | TSS  | mg/L  | 85  | 81                      | 82                  | 20  | <20  |  |
| 3                       | TDS  | mg/L  | 1064  | 716                     | 815                 | 828   | <850   |  |
| 4                       | BOD  | mg/L  | 15  | 955                     | 687                 | 618   | <150   |  |
| 5                       | COD  | mg/L  | 47  | 3019                    | 2173                | 1521  | <350   |  |
| v)                      | In case, domestic waste water generation is more than 10 KLD, the industry may install STP.  | domestic wastewater generation from premises is/will be only 1.6 KLD after proposed expansion which is less than 10 KLD. However, they will install STP System of 2.0 KLD and treated water will be reused within plant premises for gardening purpose.   |   |                         |                     | Installation of STP will be done before the commencement of the expansion project.  |  |  |
| <b>LAND ENVIRONMENT</b> |  |   |   |                         |                     |   |  |  |
| i)                      | Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever, feasible for new projects. | Out of total project area (3467.50 sq. m.) 40.0 % area i.e., 1387.0 sq. m. (1143 sq. m. existing + 244 sq. m. proposed) area will be developed within plant premises and Adjacent Boundary to plant. About total 347 trees (286 Nos. Existing + 61 Nos. Proposed) will be planted in the green belt area. |   |                         |                     | Within a year of commencement of the expansion project.   |  | 8.5 Lacs for Green belt Development Plant. |

| ii)    | Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc. | Unit has started additional plantation at Navapur village at aerial distance 3.70 km from the project site in an area of 1.5 Acre. Permission for the same obtained from Navapur gram panchayat.  | Already started. | --                           |   |  |  |                  |          |          |       |    |          |   |    |    |   |                                       |   |
|--------|--|---|------------------|------------------------------|---|--|--|------------------|----------|----------|-------|----|----------|---|----|----|---|---------------------------------------|---|
| iii)   | Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by SPCBs/PCCs.              | <p><b>Not applicable.</b></p> <p>They have proposed LDO/Natural gas (Clean Fuel) for proposed Boiler &amp; Thermic Fluid heater. <b>Hence, there will be no generation of High volume – Low effect wastes i.e., fly-ash, slag, red-mud, de-inking sludge etc.</b></p>   | --               | --                           |   |  |  |                  |          |          |       |    |          |   |    |    |   |                                       |   |
| iv)    | More stringent norms for management of hazardous waste. The waste generated should be preferably utilized in Co-processing.        | <p>They will strictly follow Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 for dispose of hazardous wastes. We will explore possibility to dispose its hazardous wastes through co-processing, pre-processing to the extent possible prior its disposal to incineration/ landfill.</p> <ul style="list-style-type: none"> <li>➤ Hazardous waste like used oil will be collected in a leak proof containers &amp; disposed only to MPCB registered authorized re-processors provided the oil meets the standards as per schedule-5 part A of the rules.</li> <li>➤ Hazardous waste like ETP Sludge &amp; MEE Salt will be sent to TSDF.</li> <li>➤ Hazardous waste like Distillation Residue, Spent Solvents &amp; Spent Salts Shall be store in a secured manner &amp; handed over to MPCB authorized incinerators (CHWIF) /co-processing in cement kiln. Shall be collected in a leak proof containers &amp; disposed as per rule 9.</li> <li>➤ Hazardous waste like Spent Catalyst will be sent to pre/co-processing units (cement industries) OR disposal at nearest CHWIF site.</li> </ul> <table border="1" data-bbox="347 1742 1169 2049"> <thead> <tr> <th rowspan="2">Sr. No</th> <th rowspan="2">Type/Name of Hazardous waste</th> <th colspan="3">Quantity (MT/Year)</th> <th rowspan="2">Management of HW</th> </tr> <tr> <th>Existing</th> <th>Proposed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Used Oil</td> <td>0</td> <td>10</td> <td>10</td> <td>Collection, Storage in a leak proof containers &amp; disposed only to MPCB registered authorized re-processors.</td> </tr> </tbody> </table> | Sr. No           | Type/Name of Hazardous waste | Quantity (MT/Year)  |  |  | Management of HW | Existing | Proposed | Total | 1. | Used Oil | 0 | 10 | 10 | Collection, Storage in a leak proof containers & disposed only to MPCB registered authorized re-processors. | Since commencement of the production. | 21.0 for Hazardous Waste Management & Disposal. |
| Sr. No | Type/Name of Hazardous waste   | Quantity (MT/Year)  |                  |                              | Management of HW  |  |  |                  |          |          |       |    |          |   |    |    |   |                                       |   |
|        |  | Existing  | Proposed         | Total                        |   |  |  |                  |          |          |       |    |          |   |    |    |   |                                       |   |
| 1.     | Used Oil   | 0   | 10               | 10                           | Collection, Storage in a leak proof containers & disposed only to MPCB registered authorized re-processors. |  |  |                  |          |          |       |    |          |   |    |    |   |                                       |   |

|                                     |   | 2. ETP Sludge   | 0 | 100       | 100          | Collection, Storage in a secured manner and Disposal at authorized TSDf site.   |                                |                       |                       |  |  |  |  |  |  |
|-------------------------------------|---|---|---|-----------|--------------|---|--------------------------------|-----------------------|-----------------------|--|--|--|--|--|--|
|                                     |   | 3. MEE Salt   | 0 | 73        | 73           | Collection, Storage, Transportation & send to pre/co-processing units (cement industries) OR disposal at nearest CHWIF site.  |                                |                       |                       |  |  |  |  |  |  |
|                                     |   | 4. Distillation Residue   | 0 | 80        | 80           | Collection, Storage, Handling recovered & recycled by Solvent Distillation Plant within premises OR Sell to End Users having permission under Rule-9, through GPS mounted vehicles. |                                |                       |                       |  |  |  |  |  |  |
|                                     |   | 5. Spent Solvent  | 0 | 495       | 495          | Collection, Storage, & Recover by stripper & send to pre/co processing unit OR send to CHWIF, through GPS mounted vehicles.   |                                |                       |                       |  |  |  |  |  |  |
|                                     |   | 6. Process Residue and wastes   | 0 | 446       | 446          | Collection, Storage in a secured manner and Disposal at authorized TSDf site.   |                                |                       |                       |  |  |  |  |  |  |
|                                     |   | 7. Spent Catalyst   | 0 | 97        | 97           | Collection, Storage, Transportation & send to pre/co-processing units (cement industries) OR disposal at nearest CHWIF site.  |                                |                       |                       |  |  |  |  |  |  |
| <b>OTHER CONDITION (ADDITIONAL)</b> |   |   |   |           |              |   |                                |                       |                       |  |  |  |  |  |  |
| i)                                  | Monitoring of compliance of EC conditions may be submitted with third party audit every year. | After obtaining EC for proposed expansion project, we will submit report of compliance of the conditions of EC every year to the Board prepared by third party.   |   |           |              | At Interval of 6 months after getting EC From EAC.  | --                             |                       |                       |  |  |  |  |  |  |
| ii)                                 | The % of the CER may be at least 1.5 times the slabs given in the OM dated 01.05.2018 for SPA | We will allocate fund for CER two times that is 2% of the total project cost as per given in the OM dated 01.05.2018 in our proposed project.<br>Estimated Budget For CER:<br>Project cost: <b>5.85 Crores.</b>             |   |           |              | Within 2 years of commencement of the project.  | 12.0 Lakhs for CER Activities. |                       |                       |  |  |  |  |  |  |
|                                     |   | <table border="1"> <thead> <tr> <th>Component</th> <th>As per Norms</th> <th>Allocation</th> </tr> </thead> <tbody> <tr> <td>CER</td> <td>Rs. 12.0 lacs (2.0 %)</td> <td>Rs. 12.0 lacs (2.0 %)</td> </tr> </tbody> </table> |   | Component | As per Norms | Allocation  | CER                            | Rs. 12.0 lacs (2.0 %) | Rs. 12.0 lacs (2.0 %) |  |  |  |  |  |  |
| Component                           | As per Norms  | Allocation  |   |           |              |   |                                |                       |                       |  |  |  |  |  |  |
| CER                                 | Rs. 12.0 lacs (2.0 %)   | Rs. 12.0 lacs (2.0 %)   |   |           |              |   |                                |                       |                       |  |  |  |  |  |  |

|   |   |   |                 |              |
|---|---|---|-----------------|--------------|
| and 2 times for CPA in case of Environmental Clearance. | <b>Activities</b><br><b>(On basis of Needs Assessment)</b>  | <b>Phase Wise Budget</b><br><b>(Lakh)</b> |                 |              |
|   |   | <b>1st Year</b>                           | <b>2nd Year</b> | <b>TOTAL</b> |
|   | <ul style="list-style-type: none"> <li>• <b>Avenue Plantation</b><br/> Plantation around location area as Navapur village- cost of 1 plant- 2000/- with maintenance for 2 year (200 plants).</li> </ul>     | <b>2.0</b>                                | <b>2.0</b>      | <b>4.0</b>   |
|   | <ul style="list-style-type: none"> <li>• <b>Solar Energy Utilization</b><br/> Installation of 17.0 kw rooftop solar system at Primary Government School, Grampanchayat, Aanganwadi @ Pam Village</li> </ul> | <b>4.0</b>                                | <b>4.0</b>      | <b>8.0</b>   |
|   | <b>Total Cost</b>   | <b>Approx. INR 12.0 Lakh</b>              |                 |              |

### Agenda No. 71.3

**Proposed Synthetic Organic Chemicals Manufacturing Unit of production capacity 600 TPM located at Plot No. A1/47/4, Nandesari GIDC Industrial Estate, Vadodara, Gujarat by M/s. Sabari Chemicals Pvt. Ltd., Unit II - Reconsideration of Environmental Clearance**

**[Proposal No. IA/GJ/IND3/449754/20230, File No. IA-J-11011/266/2023-IA-II(I)]**

- The proposal is for the Environmental Clearance to the Proposed Synthetic Organic Chemicals Manufacturing Unit of production capacity 600 TPM located at Plot No. A1/47/4, Nandesari GIDC Industrial Estate Vadodara, Gujarat by M/s. Sabari Chemicals Pvt. Ltd., Unit II.
- The project/activity is covered under Category 'B' of item 5(f), Synthetic organic chemicals industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) but due to applicability of general condition i.e. project site is located in a critically polluted area, the proposal is treated as Category A and the proposal requires appraisal at central level by the sectoral EAC in the MOEF&CC.
- The ToR was issued by the Ministry, vide letter no. IA-J-11011/266/2023-IA-II(I); dated 25.8.2023. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a **Fresh case**. The proposal is placed in this 71<sup>st</sup> EAC meeting held on 29<sup>th</sup> December, 2023, wherein the PP along with accredited Consultant, M/s. Jyoti Organic Chemical Research Centre Pvt. Ltd. (NABET/EIA/2124/SA 0198 Valid till 17.06.2024) made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:
- The PP reported that the proposed land area is 2702 sq. meter, no R& R is involved in the Project. The detail of products to be manufactured are as follows:

| Sr. No. | Name of Products   | CAS No. | Quantity [MT/Month] | End Uses |
|---------|--------------------|---------|---------------------|----------|
| 1       | Benzyl Derivatives |         | 400                 |          |

| Sr. No.      | Name of Products                                | CAS No.   | Quantity [MT/Month] | End Uses   |
|--------------|---|-----------|---------------------|--|
| 1.1          | Benzyl Alcohol (All Grades )<br><b>And/ or</b>  | 100-51-6  |                     | used as a solvent in the production of perfumes, paints, and adhesives, etc.   |
| 1.2          | Benzyl Benzoate (All Grades )<br><b>And/ or</b> | 120-51-4  |                     | used to treat lice and scabies infestations.   |
| 1.3          | Benzyl Salicylate <b>And/ or</b>                | 118-58-1  |                     | used as a flavor and fragrance agent and as a UV absorber.   |
| 1.4          | Benzyl Cyanide <b>And/ or</b>                   | 140-29-4  |                     | used as a specialist chemical  |
| 1.6          | Para chloro Benzyl Cyanide<br><b>And/ or</b>    | 140-53-4  |                     | used in the synthesis of clopidogrel, platelet aggregation inhibitor.  |
| 1.6          | Ortho chloro Benzyl Cyanide<br><b>And/ or</b>   | 2856-63-5 |                     |  |
| 2            | Phenyl Acetic Acid                              | 1 03-82-2 | 100                 | used as an adjunct to treat acute hyperammonemia and associated encephalopathy in adult and pediatric patients with deficiencies in enzymes of the urea cycle. |
| 3            | Butyl Cyanide ( Valeronitrile)                  | 110-59-8  | 20                  | used as a raw material for organic synthesis and as an extractant to extract benzene   |
| 4            | Para Methoxy Phenyl Acetonitrile                | 104-47-2  | 60                  | pharmaceutical intermediate used to make anti-depressants such as Venlafaxine  |
| 5            | Para Methoxy Phenyl Acetic Acid                 | 7021-09-2 | 20                  | used as an intermediate for pharmaceuticals and other organic synthesis  |
| <b>Total</b> |   |           | <b>600 TPM</b>      |  |

- The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction is issued under the E(P) Act/Air Act/Water Act.
- The PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. Mahi River is flowing at distance of 2.21 km in West direction. Six Schedule-I species i.e Grey mongoose, Shikra, Indian peafowl, Bar Owl, Indian ratsnake and Indian cobra are found in the study area for which conservation plan has been prepared.
- The PP reported that the **Ambient air quality monitoring** was carried out at 9 locations during November 2022 to January-2023. to and the baseline data indicates the ranges of concentrations as: PM10 (61-83 µg/m<sup>3</sup>)

PM<sub>2.5</sub> (36-52 µg/m<sup>3</sup>), SO<sub>2</sub> (10-31 µg/m<sup>3</sup>) and NO<sub>2</sub> (10-24 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 83.09 µg/m<sup>3</sup> for PM<sub>10</sub>, 52.12 µg/m<sup>3</sup> for PM<sub>2.5</sub>, 23.19 µg/m<sup>3</sup> for SO<sub>2</sub>, 7.71 µg/m<sup>3</sup> for NH<sub>3</sub>, 10.3 µg/m<sup>3</sup> for HCl, 3.02 µg/m<sup>3</sup> for Cl<sub>2</sub>, 11.03 µg/m<sup>3</sup> for HBr, and 3.22 µg/m<sup>3</sup> for Br<sub>2</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

8. The PP reported that the Total water requirement is 185 m<sup>3</sup>/day of which freshwater requirement of 181 m<sup>3</sup>/day will be met from GIDC Supply. Effluent of 152 m<sup>3</sup>/day quantity will be treated through Primary ETP and the sent to CETP of M/s. NIA, Nandesari for final disposal. 7 KLD Boiler blowdown and 7 KLD cooling tower blow down reuse for making lime solution for ETP and Sewage 4 KLD will be treated through STP and reuse in Gardening.
9. The Power requirement will be 250 KW and will be met from Madhya Gujarat Vij Company Limited (MGVCL). Unit will have 1 No. of DG sets (250 KVA) capacity, as standby during power failure. Stack (height 11 m) will be provided as per CPCB norms to the proposed DG sets.
10. Unit will be installed **2 No. of Boilers (2 TPH)** with a stack of height, of **30 m** and **2 No. Thermic Fluid heaters (4 lac KCal/Hr.)** with a stack of height, of **13 m**. unit will be installed **Cyclone + bag filter** for controlling the particulate emissions within the statutory limit of 120 mg/Nm<sup>3</sup> for the proposed **boilers and Thermic Fluid heaters**.

| Sr. no. | Source of emission With Capacity            | Stack Height (meter) | Type of Fuel          | Quantity of Fuel MT/Day | Emission Standard  | Emission Standard as per Critically Polluted Area                                   | Air Pollution Control Measures (APCM) |
|---------|---|----------------------|-----------------------|-------------------------|--|---|---------------------------------------|
| 1.      | Thermic Fluid heater No. 1 (4 lac KCal/Hr.) | 13                   | Agro waste/ briquette | 15 MT/Day               | PM < 150 mg/Nm <sup>3</sup><br>SO <sub>x</sub> < 100 ppm<br>NO <sub>x</sub> < 50 ppm | PM < 120 mg/Nm <sup>3</sup><br>SO <sub>x</sub> < 80 ppm<br>NO <sub>x</sub> < 40 ppm | Cyclone + bag filter                  |
| 2       | Thermic Fluid heater No. 2 (4 lac KCal/Hr.) | 13                   | Agro waste/ briquette | 15 MT/Day               |  |   | Cyclone + bag filter                  |
| 3       | Boiler No. 1 (2 MT /Hr.)                    | 30                   | Agro waste/ briquette | 12 MT/Day               |  |   | Cyclone & Bag filter                  |
| 4       | Boiler No. 2 (2 MT /Hr.)                    | 30                   | Agro waste/ briquette | 12 MT/Day               |  |   | Cyclone & Bag filter                  |

| Sr. No. | Particulars | Requirement | Remark |
|---------|-------------|-------------|--------|
|         |             |             |        |

|    |                       |             |   |
|----|-----------------------|-------------|---|
| 1. | Electricity           | 250 KW      | Will be met through electricity company-<br>MGVCL |
| 2. | Agro Waste/ Briquette | 54 MT/Day   | Local Supplier                                    |
| 3. | HSD                   | 600 Lit/Day | Local suppliers                                   |

**11. Details of Process Emissions Generation and its Management:** To manage the release of process gas emissions like HCl, SO<sub>2</sub> and NH<sub>3</sub> from the reaction vessel, unit will install 4 nos of stacks. For emission flowing out of the reaction vessel, the unit will provide an adequate stack height with a two-stage water scrubber and two stage caustic scrubbers as an APCM.

#### Process Gas Emission

| Sr. No. | Vent Attached to | Height From Ground Level | Expected Pollutants   | Emission Standard                             | Emission Standard as Per Critically Polluted Area | Air Pollution Control System |
|---------|------------------|--------------------------|-----------------------|---|---|------------------------------|
| 1       | Scrubber No. 1   | 15                       | HCl                   | 9 mg/Nm <sup>3</sup>                          | 7.2 mg/Nm <sup>3</sup>                            | Two stage caustic scrubbers  |
| 2       | Scrubber No. 2   | 15                       | HCl                   | 9 mg/Nm <sup>3</sup>                          | 7.2 mg/Nm <sup>3</sup>                            | Two stage caustic scrubbers  |
| 3       | Scrubber No. 3   | 15                       | SO <sub>2</sub> , HCl | 40 mg/Nm <sup>3</sup><br>9 mg/Nm <sup>3</sup> | 32 mg/Nm <sup>3</sup><br>7.2 mg/Nm <sup>3</sup>   | Two stage caustic scrubbers  |
| 4       | Scrubber No. 4   | 15                       | Ammonia               | 175 mg/Nm <sup>3</sup>                        | 140 mg/Nm <sup>3</sup>                            | Two stage water scrubbers    |

**12. Details of Solid Waste/ Hazardous Waste Generation and its Management:** 4 Categories of Hazardous/Solid Wastes shall be generated from this Unit.

| Sr. No. | Name of Hazardous Waste   | Source of Generation       | Category | Total Quantity MT/Year | Mode of Disposal   |
|---------|---|----------------------------|----------|------------------------|--|
| 1.      | Effluent Treatment Plant Sludge   | From ETP                   | 35.3     | 1200                   | Collection, Storage, Transportation, Disposal at TSDF site authorized by the GPCB.             |
| 2.      | Used Oil  | From Lubrication           | 5.1      | 1                      | Collection, Storage, Transportation, Reused, Disposal at by Selling registered refiners.       |
| 3.      | Empty Containers/ Barrels/ Liners Contaminated with hazardous chemicals/ wastes | Material Handling          | 33.1     | 30                     | Collection, Storage, Decontamination, Transportation and Reuse or sell to registered recyclers |
| 4.      | Distillation Residue  | From manufacturing process | 28.1     | 340                    | Collection, Storage, transport to TSDF and will be sent for co processing in cement industry   |

| Sr. No. | Waste              | Quantity      | Mode Of Disposal  |
|---------|--------------------|---------------|---|
| 1.      | Glass Waste (Z 13) | 0.01 MT/Month | Disposal /sold to scrap processors  |
| 2.      | Paper waste (Z 44) | 0.1 MT/Month  | At notified area facility/ sold to scrap processors                               |
| 3.      | Fly Ash            | 43.2 MT/Month | Send to authorize Brick manufactures  |
| 4.      | E – Waste          | 0.1 MT/Month  | Collection, Storage, Transportation & Disposal by selling to authorized Recyclers |
| 5.      | Battery waste      | 0.04 MT/Month | Collection, Storage, Transportation & Disposal by selling to authorized Recyclers |

13. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 3 Crore (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 2.98 Crore per annum. Industry proposes to allocate ₹ 0.94 Crores towards CER.
14. The PP reported that the industry will develop greenbelt over an area of 953.40 m<sup>2</sup> (35.28 %) out of 2702 m<sup>2</sup>, total area of the project within premises and additional 400 m<sup>2</sup> (14.80 %) of the project outside premises. Total greenbelt area will be 1353.4 m<sup>2</sup> (50.08 %).
15. The PP reported that the Public hearing is exempted as per the Para 7.III. Stage (3) (i) (b) of the EIA Notification, 2006 Project site is located at GIDC Nandesari which is declared as notified industrial area vide notification no. GIDC No.GHU/75/36/GID 1974/4084 (I) CH dated 06.05.1975)
16. The PP proposed to set up an Environment Management Cell (EMC) by engaging environment officials mentioned in EIA/EMP for the functioning of EMC.
17. The PP submitted the Onsite and Offsite disaster management plans in the EIA report.
18. The estimated project cost is Rs. 23.50 Crores. Total Employment will be 58 persons as direct & 30 persons indirect
19. The proposal was earlier considered in the 69<sup>th</sup> EAC meeting held on 17<sup>th</sup> November, 2023, wherein the EAC deferred the proposal for want of requisite information. Reply to the same was submitted by the PP, which is as follows:

| S. No. | Queries Raised by EAC                                  | Reply by PP |  |          |                                 |  |
|--------|--|-------------|--|----------|---------------------------------|--|
|        |  | Sr. No      | Name of Products                           | CAS No.  | Production Quantity in MT/Month | End Uses   |
|        | List of products to be manufactured shall be provided. | I           | Benzyl Derivatives                         |          | 400                             |  |
|        |  | I.1         | Benzyl Alcohol (All Grades) <b>And/ or</b> | 100-51-6 |                                 | used as a solvent in the production of perfumes, paints, and adhesives, etc. |

|  |  |  |  |           |            |  |
|--|--|--|--|-----------|------------|--|
|  |  | 1.2  | Benzyl Benzoate (All Grades ) <b>And/ or</b> | 120-51-4  |            | used to treat lice and scabies infestations.   |
|  |  | 1.3  | Benzyl Salicylate <b>And/ or</b>             | 118-58-1  |            | used as a flavor and fragrance agent and as a UV absorber.   |
|  |  | 1.4  | Benzyl Cyanide <b>And/ or</b>                | 140-29-4  |            | used as a specialist chemical  |
|  |  | 1.6  | Para chloro Benzyl Cyanide <b>And/ or</b>    | 140-53-4  |            | used in the synthesis of clopidogrel, platelet aggregation inhibitor.  |
|  |  | 1.6  | Ortho chloro Benzyl Cyanide <b>And/ or</b>   | 2856-63-5 |            |  |
|  |  | 2  | Phenyl Acetic Acid                           | 103-82-2  | 100        | used as an adjunct to treat acute hyperammonemia and associated encephalopathy in adult and pediatric patients with deficiencies in enzymes of the urea cycle. |
|  |  | 3  | Butyl Cyanide (Valeronitrile)                | 110-59-8  | 20         | used as a raw material for organic synthesis and as an extractant to extract benzene   |
|  |  | 4  | Para Methoxy Phenyl Acetonitrile             | 104-47-2  | 60         | pharmaceutical intermediate used to make anti-depressants such as Venlafaxine  |
|  |  | 5  | Para Methoxy Phenyl Acetic Acid              | 7021-09-2 | 20         | used as an intermediate for pharmaceuticals and other organic synthesis  |
|  |  |  | <b>Total</b>                                 |           | <b>600</b> |  |
|  | Material balance of products to be manufactured alongwith details of process emission if any.  | Revise Material balance of products with process is covered below  |  |           |            |  |
|  | Please confirm whether existing unit will be demolished? If yes, quantity of C & D will be generated and action plan for disposal of such waste. | The existing shed is provided by GIDC. It will not be demolished. There will be a plant constructed inside the shed. Some minor modifications and foundation to install machinery will be made within the shed. The eviction and modification will generate around 10 to 12 tons of debris. The debris will be utilized within the plant premises for plant leveling and filling material. No waste will go outside the premises.  |  |           |            |  |
|  | PP shall provide treatment scheme for cyanide effluent stream.   | Treatment scheme for cyanide effluent stream is covered below;<br>a. The effluent from the cyanide stream will be collected in a separate collection tank.<br>b. check pH level.<br>c. Add lime solution to wastewater to be treated and raise pH up to 10.5.<br>d. Then it will be batch-wise transferred to the 10 KL treatment tank facilitated with stirrer.<br>e. After testing the cyanide content which will be almost between the ranges of 30 to 40 ppm.<br>f. add approx. 60 Kgs of sodium hypochlorite solution to the effluent under stirring for the first 3 hours and then check the sample for the absence of cyanide content.<br>g. After the QC Check transfer the effluent to the primary treatment tank where it will be further treated. |  |           |            |  |

|         | <p>h. If the qualities of cyanide to be destroyed are small enough. It will be perfectly acceptable to use sodium hypochlorite.</p> <p>. It will be perfectly acceptable to use sodium hypochlorite. The following equation shows the reaction pattern.</p> $5\text{NaOCl} + \text{H}_2\text{O} + 2\text{NaCN} \rightarrow 2\text{NaHCO}_3 + \text{N}_2 + 5\text{NaCl}$ <p><b>DETAILS OF DIFFERENT ETP UNITS FOR CYANIDE STREAM</b></p> <table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Name of Unit</th> <th>No of Unit</th> <th>Capacity</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Collection Cum Equalization Tank</td> <td>1</td> <td>50 KL</td> </tr> <tr> <td>2</td> <td>Cyanide Stream Treatment Tank with Sodium Hypochlorite Dosing Tank.</td> <td>1</td> <td>10 KL</td> </tr> </tbody> </table> <p><b>EFFLUENT QUALITY BEFORE TREATMENT &amp; AFTER TREATMENT IN ETP FOR CYANIDE STREAM.</b></p> <table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Category of Wastewater</th> <th>Before Treatment</th> <th>Final Treated Effluent</th> <th>CETP Inlet Norms</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>pH</td> <td>6 to 8</td> <td>6.5 to 7.5</td> <td>6.5 to 8.0</td> </tr> <tr> <td>2.</td> <td>COD (mg/l)</td> <td>8000-10000</td> <td>1000-1200</td> <td>&lt;1500</td> </tr> <tr> <td>3.</td> <td>BOD (mg/l)</td> <td>1000-2000</td> <td>100-300</td> <td>&lt;500</td> </tr> <tr> <td>4.</td> <td>TDS (mg/l)</td> <td>4000-7000</td> <td>7000-10000</td> <td>No TDS Limit</td> </tr> <tr> <td>5.</td> <td>Ammonical Nitrogen (mg/l)</td> <td>30-50</td> <td>&lt;20</td> <td>&lt;50</td> </tr> <tr> <td>6.</td> <td>TSS (mg/l)</td> <td>250-400</td> <td>&lt;200</td> <td>&lt;600</td> </tr> <tr> <td>7.</td> <td>Cyanide in ppm</td> <td>30-40</td> <td>Nil</td> <td>&lt;0.2</td> </tr> </tbody> </table> | Sr. No.   | Name of Unit           | No of Unit       | Capacity | 1 | Collection Cum Equalization Tank | 1 | 50 KL | 2 | Cyanide Stream Treatment Tank with Sodium Hypochlorite Dosing Tank. | 1 | 10 KL | Sr. No. | Category of Wastewater | Before Treatment | Final Treated Effluent | CETP Inlet Norms | 1. | pH | 6 to 8 | 6.5 to 7.5 | 6.5 to 8.0 | 2. | COD (mg/l) | 8000-10000 | 1000-1200 | <1500 | 3. | BOD (mg/l) | 1000-2000 | 100-300 | <500 | 4. | TDS (mg/l) | 4000-7000 | 7000-10000 | No TDS Limit | 5. | Ammonical Nitrogen (mg/l) | 30-50 | <20 | <50 | 6. | TSS (mg/l) | 250-400 | <200 | <600 | 7. | Cyanide in ppm | 30-40 | Nil | <0.2 |
|---------|---|---|------------------------|------------------|----------|---|----------------------------------|---|-------|---|---|---|-------|---------|------------------------|------------------|------------------------|------------------|----|----|--------|------------|------------|----|------------|------------|-----------|-------|----|------------|-----------|---------|------|----|------------|-----------|------------|--------------|----|---------------------------|-------|-----|-----|----|------------|---------|------|------|----|----------------|-------|-----|------|
| Sr. No. | Name of Unit  | No of Unit  | Capacity               |                  |          |   |                                  |   |       |   |   |   |       |         |                        |                  |                        |                  |    |    |        |            |            |    |            |            |           |       |    |            |           |         |      |    |            |           |            |              |    |                           |       |     |     |    |            |         |      |      |    |                |       |     |      |
| 1       | Collection Cum Equalization Tank  | 1   | 50 KL                  |                  |          |   |                                  |   |       |   |   |   |       |         |                        |                  |                        |                  |    |    |        |            |            |    |            |            |           |       |    |            |           |         |      |    |            |           |            |              |    |                           |       |     |     |    |            |         |      |      |    |                |       |     |      |
| 2       | Cyanide Stream Treatment Tank with Sodium Hypochlorite Dosing Tank.   | 1   | 10 KL                  |                  |          |   |                                  |   |       |   |   |   |       |         |                        |                  |                        |                  |    |    |        |            |            |    |            |            |           |       |    |            |           |         |      |    |            |           |            |              |    |                           |       |     |     |    |            |         |      |      |    |                |       |     |      |
| Sr. No. | Category of Wastewater  | Before Treatment  | Final Treated Effluent | CETP Inlet Norms |          |   |                                  |   |       |   |   |   |       |         |                        |                  |                        |                  |    |    |        |            |            |    |            |            |           |       |    |            |           |         |      |    |            |           |            |              |    |                           |       |     |     |    |            |         |      |      |    |                |       |     |      |
| 1.      | pH  | 6 to 8  | 6.5 to 7.5             | 6.5 to 8.0       |          |   |                                  |   |       |   |   |   |       |         |                        |                  |                        |                  |    |    |        |            |            |    |            |            |           |       |    |            |           |         |      |    |            |           |            |              |    |                           |       |     |     |    |            |         |      |      |    |                |       |     |      |
| 2.      | COD (mg/l)  | 8000-10000  | 1000-1200              | <1500            |          |   |                                  |   |       |   |   |   |       |         |                        |                  |                        |                  |    |    |        |            |            |    |            |            |           |       |    |            |           |         |      |    |            |           |            |              |    |                           |       |     |     |    |            |         |      |      |    |                |       |     |      |
| 3.      | BOD (mg/l)  | 1000-2000   | 100-300                | <500             |          |   |                                  |   |       |   |   |   |       |         |                        |                  |                        |                  |    |    |        |            |            |    |            |            |           |       |    |            |           |         |      |    |            |           |            |              |    |                           |       |     |     |    |            |         |      |      |    |                |       |     |      |
| 4.      | TDS (mg/l)  | 4000-7000   | 7000-10000             | No TDS Limit     |          |   |                                  |   |       |   |   |   |       |         |                        |                  |                        |                  |    |    |        |            |            |    |            |            |           |       |    |            |           |         |      |    |            |           |            |              |    |                           |       |     |     |    |            |         |      |      |    |                |       |     |      |
| 5.      | Ammonical Nitrogen (mg/l)   | 30-50   | <20                    | <50              |          |   |                                  |   |       |   |   |   |       |         |                        |                  |                        |                  |    |    |        |            |            |    |            |            |           |       |    |            |           |         |      |    |            |           |            |              |    |                           |       |     |     |    |            |         |      |      |    |                |       |     |      |
| 6.      | TSS (mg/l)  | 250-400   | <200                   | <600             |          |   |                                  |   |       |   |   |   |       |         |                        |                  |                        |                  |    |    |        |            |            |    |            |            |           |       |    |            |           |         |      |    |            |           |            |              |    |                           |       |     |     |    |            |         |      |      |    |                |       |     |      |
| 7.      | Cyanide in ppm  | 30-40   | Nil                    | <0.2             |          |   |                                  |   |       |   |   |   |       |         |                        |                  |                        |                  |    |    |        |            |            |    |            |            |           |       |    |            |           |         |      |    |            |           |            |              |    |                           |       |     |     |    |            |         |      |      |    |                |       |     |      |
| 2       | Copy of documentary proof for purchase of additional land for development of greenbelt.   | Unit will develop additional 400 sq. m (14.80 %) outside the GIDC, in Damapura village. This activity will be done under the Nandesari Industrial Association. Unit has taken the permission from NIA. Land purchased by NIA for green belt development in Damapura Village is submitted. |                        |                  |          |   |                                  |   |       |   |   |   |       |         |                        |                  |                        |                  |    |    |        |            |            |    |            |            |           |       |    |            |           |         |      |    |            |           |            |              |    |                           |       |     |     |    |            |         |      |      |    |                |       |     |      |
|         | Copy of agreement with CETP for discharge of effluent to CETP   | PP has submitted Copy of agreement dated 1.12.2023 with CETP for discharge of effluent to CETP  |                        |                  |          |   |                                  |   |       |   |   |   |       |         |                        |                  |                        |                  |    |    |        |            |            |    |            |            |           |       |    |            |           |         |      |    |            |           |            |              |    |                           |       |     |     |    |            |         |      |      |    |                |       |     |      |
|         | Status of operation of CETP alongwith its CTO issued by SPCB.   | Analysis report of CETP of last three months is submitted.<br><br>Consent copy of CETP is submitted.  |                        |                  |          |   |                                  |   |       |   |   |   |       |         |                        |                  |                        |                  |    |    |        |            |            |    |            |            |           |       |    |            |           |         |      |    |            |           |            |              |    |                           |       |     |     |    |            |         |      |      |    |                |       |     |      |

| <p>PP presented that incinerable waste generation is 14000 Ton/annum, which seems to be higher side. Please recheck hazardous waste generation figures with material balance and resubmit.</p> | <p>Unit have checked the material balance and revised it. Residue generation will be 340 MT/Annum. Revised material balances has been submitted.</p> <table border="1" data-bbox="427 253 1477 958"> <thead> <tr> <th>Sr. No.</th> <th>Name of Hazardous Waste</th> <th>Source of Generation</th> <th>Category</th> <th>Total Quantity MT/Year</th> <th>Mode of Disposal</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Effluent Treatment Plant Sludge</td> <td>From ETP</td> <td>35.3</td> <td>1200</td> <td>Collection, Storage, Transportation, Disposal at TSDF site authorized by the GPCB.</td> </tr> <tr> <td>2.</td> <td>Used Oil</td> <td>From Lubrication</td> <td>5.1</td> <td>1</td> <td>Collection, Storage, Transportation, Reused, Disposal at by Selling registered refiners.</td> </tr> <tr> <td>3.</td> <td>Empty Barrels/ Containers/ Liners Contaminated with hazardous chemicals/ wastes</td> <td>Material Handling</td> <td>33.1</td> <td>30</td> <td>Collection, Storage, Decontamination, Transportation and Reuse or sell to registered recyclers</td> </tr> <tr> <td>4.</td> <td>Distillation Residue</td> <td>From manufacturing process</td> <td>28.1</td> <td>340</td> <td>Collection, Storage, transport to TSDF and will be sent for co processing in cement industry.</td> </tr> </tbody> </table> | Sr. No.  | Name of Hazardous Waste     | Source of Generation                          | Category   | Total Quantity MT/Year                        | Mode of Disposal | 1.         | Effluent Treatment Plant Sludge                | From ETP | 35.3 | 1200 | Collection, Storage, Transportation, Disposal at TSDF site authorized by the GPCB. | 2.   | Used Oil | From Lubrication | 5.1 | 1                    | Collection, Storage, Transportation, Reused, Disposal at by Selling registered refiners. | 3. | Empty Barrels/ Containers/ Liners Contaminated with hazardous chemicals/ wastes | Material Handling | 33.1          | 30   | Collection, Storage, Decontamination, Transportation and Reuse or sell to registered recyclers | 4.   | Distillation Residue | From manufacturing process | 28.1 | 340 | Collection, Storage, transport to TSDF and will be sent for co processing in cement industry. |    |                        |   |    |      |
|--|---|--|-----------------------------|---|--|---|------------------|------------|--|----------|------|------|--|--|----------|------------------|-----|----------------------|--|----|---|-------------------|---------------|--|--|------|----------------------|----------------------------|------|-----|---|----|------------------------|---|----|------|
| Sr. No.  | Name of Hazardous Waste   | Source of Generation   | Category                    | Total Quantity MT/Year                        | Mode of Disposal   |   |                  |            |  |          |      |      |  |  |          |                  |     |                      |  |    |   |                   |               |  |  |      |                      |                            |      |     |   |    |                        |   |    |      |
| 1.   | Effluent Treatment Plant Sludge   | From ETP   | 35.3                        | 1200  | Collection, Storage, Transportation, Disposal at TSDF site authorized by the GPCB.             |   |                  |            |  |          |      |      |  |  |          |                  |     |                      |  |    |   |                   |               |  |  |      |                      |                            |      |     |   |    |                        |   |    |      |
| 2.   | Used Oil  | From Lubrication   | 5.1                         | 1   | Collection, Storage, Transportation, Reused, Disposal at by Selling registered refiners.       |   |                  |            |  |          |      |      |  |  |          |                  |     |                      |  |    |   |                   |               |  |  |      |                      |                            |      |     |   |    |                        |   |    |      |
| 3.   | Empty Barrels/ Containers/ Liners Contaminated with hazardous chemicals/ wastes   | Material Handling  | 33.1                        | 30  | Collection, Storage, Decontamination, Transportation and Reuse or sell to registered recyclers |   |                  |            |  |          |      |      |  |  |          |                  |     |                      |  |    |   |                   |               |  |  |      |                      |                            |      |     |   |    |                        |   |    |      |
| 4.   | Distillation Residue  | From manufacturing process   | 28.1                        | 340   | Collection, Storage, transport to TSDF and will be sent for co processing in cement industry.  |   |                  |            |  |          |      |      |  |  |          |                  |     |                      |  |    |   |                   |               |  |  |      |                      |                            |      |     |   |    |                        |   |    |      |
| <p>Revised capital and recurring cost earmarked for EMP alongwith its breakup.</p>   | <p><b>Revised Budget Allocation for Environmental Management</b></p> <table border="1" data-bbox="427 1055 1477 2033"> <thead> <tr> <th>Sr. No</th> <th>Unit</th> <th>Detail</th> <th>Capital Cost (Rs. In Lakhs)</th> <th>Total Recurring Cost per Annum (Rs. In Lakhs)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Wastewater</td> <td>STP + ETP + One time membership charge of CETP</td> <td>120</td> <td>217</td> </tr> <tr> <td>2</td> <td>Air</td> <td>Stack and APCM and its maintenance, Acoustic enclosure</td> <td>50</td> <td>28</td> </tr> <tr> <td>3</td> <td>Hazardous Management</td> <td>Hazardous waste storage, transportation and Disposal</td> <td>30</td> <td>34.9</td> </tr> <tr> <td>4</td> <td>Fire &amp; Safety</td> <td>Safety Equipment (PPE, fire extinguishers, First Aid Kit, Smoke detector, Fire Sprinkler System Ventilation, Fire Hydrant System, Fire Proximity Suit)</td> <td>55</td> <td>2.00</td> </tr> <tr> <td>5</td> <td>AWH Monitoring</td> <td>---</td> <td>5</td> <td>0.75</td> </tr> <tr> <td>6.</td> <td>Green Belt Development</td> <td>Development Green belt area and its maintenance</td> <td>25</td> <td>2.00</td> </tr> </tbody> </table>  | Sr. No   | Unit                        | Detail  | Capital Cost (Rs. In Lakhs)  | Total Recurring Cost per Annum (Rs. In Lakhs) | 1                | Wastewater | STP + ETP + One time membership charge of CETP | 120      | 217  | 2    | Air  | Stack and APCM and its maintenance, Acoustic enclosure | 50       | 28               | 3   | Hazardous Management | Hazardous waste storage, transportation and Disposal                                     | 30 | 34.9  | 4                 | Fire & Safety | Safety Equipment (PPE, fire extinguishers, First Aid Kit, Smoke detector, Fire Sprinkler System Ventilation, Fire Hydrant System, Fire Proximity Suit) | 55   | 2.00 | 5                    | AWH Monitoring             | ---  | 5   | 0.75  | 6. | Green Belt Development | Development Green belt area and its maintenance | 25 | 2.00 |
| Sr. No   | Unit  | Detail   | Capital Cost (Rs. In Lakhs) | Total Recurring Cost per Annum (Rs. In Lakhs) |  |   |                  |            |  |          |      |      |  |  |          |                  |     |                      |  |    |   |                   |               |  |  |      |                      |                            |      |     |   |    |                        |   |    |      |
| 1  | Wastewater  | STP + ETP + One time membership charge of CETP   | 120                         | 217   |  |   |                  |            |  |          |      |      |  |  |          |                  |     |                      |  |    |   |                   |               |  |  |      |                      |                            |      |     |   |    |                        |   |    |      |
| 2  | Air   | Stack and APCM and its maintenance, Acoustic enclosure   | 50                          | 28  |  |   |                  |            |  |          |      |      |  |  |          |                  |     |                      |  |    |   |                   |               |  |  |      |                      |                            |      |     |   |    |                        |   |    |      |
| 3  | Hazardous Management  | Hazardous waste storage, transportation and Disposal   | 30                          | 34.9  |  |   |                  |            |  |          |      |      |  |  |          |                  |     |                      |  |    |   |                   |               |  |  |      |                      |                            |      |     |   |    |                        |   |    |      |
| 4  | Fire & Safety   | Safety Equipment (PPE, fire extinguishers, First Aid Kit, Smoke detector, Fire Sprinkler System Ventilation, Fire Hydrant System, Fire Proximity Suit) | 55                          | 2.00  |  |   |                  |            |  |          |      |      |  |  |          |                  |     |                      |  |    |   |                   |               |  |  |      |                      |                            |      |     |   |    |                        |   |    |      |
| 5  | AWH Monitoring  | ---  | 5                           | 0.75  |  |   |                  |            |  |          |      |      |  |  |          |                  |     |                      |  |    |   |                   |               |  |  |      |                      |                            |      |     |   |    |                        |   |    |      |
| 6.   | Green Belt Development  | Development Green belt area and its maintenance  | 25                          | 2.00  |  |   |                  |            |  |          |      |      |  |  |          |                  |     |                      |  |    |   |                   |               |  |  |      |                      |                            |      |     |   |    |                        |   |    |      |

|   |   |                                 |                                     |   |                       |               |
|---|---|---------------------------------|-------------------------------------|---|-----------------------|---------------|
|   |   | 7.                              | Occupational Health                 | First Aid Kit, Medicine, Beds, other facility                 | 5                     | 0.32          |
|   |   | 8.                              | DCS Automation System               | DCS automation system for process, scrubber, solvent recovery | 10                    | 5             |
|   |   | <b>Total</b>                    |                                     |   | <b>300</b>            | <b>289.97</b> |
| Details of Storage quantity of hazardous chemicals. | <b>NAME OF HAZARDOUS SUBSTANCE</b>        | <b>MAX. STORAGE CAP. [Qty.]</b> | <b>PLACE OF ITS STORAGE</b>         | <b>OPERATING PRESS. &amp; TEMP.</b>                           | <b>TYPE OF HAZARD</b> |               |
|   | Toluene                                   | 5 MT                            | 180 Liters Drums                    | Atm. & Amb.   | Fire & Explosion      |               |
|   | Benzyl Alcohol (All Grades): Product      | 15 MT                           | 220 Liters Drums/ 35 Liters Carboys | Atm. & Amb.   | Fire/Combustible      |               |
|   | Benzyl Benzoate (All Grades): Product     | 10 MT                           | 220 Liters Drums/ 35 Liters Carboys | Atm. & Amb.   | Fire/Combustible      |               |
|   | Benzyl Salicylate: Product                | 3 MT                            | 220 Liters Drums/ 35 Liters Carboys | Atm. & Amb.   | Fire/Combustible      |               |
|   | Benzyl Chloride                           | 10 MT                           | 230 Liters Drums                    | Atm. & Amb.   | Fire & Corrosive      |               |
|   | Para Benzyl Chloride                      | 2 MT                            | 35 Liters Carboys                   | Atm. & Amb.   | Fire & Corrosive      |               |
|   | Ortho Benzyl Chloride                     | 2 MT                            | 200 Liters Drum                     | Atm. & Amb.   | Fire & Corrosive      |               |
|   | Ortho Chloro Benzyl chloride              | 10 MT                           | 200 Liters Drum                     | Atm. & Amb.   | Fire & Corrosive      |               |
|   | Benzyl Cyanide: Product                   | 15 MT                           | 220 Liters Drums/ 35 Liters Carboys | Atm. & Amb.   | Poison & Corrosive    |               |
|   | Para Chloro Benzyl Cyanide: Product       | 10 MT                           | 220 Liters Drums/ 35 Liters Carboys | Atm. & Amb.   | Poison & Corrosive    |               |
|   | Ortho Chloro Benzyl Cyanide: Product      | 10MT                            | 220 Liters Drums/ 35 Liters Carboys | Atm. & Amb.   | Poison & Corrosive    |               |
|   | HCL                                       | 10 MT                           | 250 Liters Drum                     | Atm. & Amb.   | Corrosive             |               |
|   | Caustic Lye                               | 15-20 MT                        | 20 Liters Carboys                   | Atm. & Amb.   | Corrosive             |               |
|   | Phenyl Acetic Acid: Product               | 10 MT                           | 25 Kg Bag/ Drum                     | Atm. & Amb.   | Corrosive             |               |
|   | Sodium Cyanide                            | 10 MT                           | 50 Kg MS Drum                       | Atm. & Amb.   | Poison                |               |
|   | Butyl Cyanide (Valero nitrile): Product   | 10 MT                           | 170 Kg Drums/ 25 Kg Drums           | Atm. & Amb.   | Fire & Explosive      |               |
|   | Para Methoxy Phenyl Acetonitrile: Product | 10 MT                           | 200 Liters Drum                     | Atm. & Amb.   | Health/Irritant       |               |
|   | Para Methoxy Phenyl Acetic Acid: Product  | 5 MT                            | 50 Kg Drum                          | Atm. & Amb.   | Health/Irritant       |               |
|   | Chlorine                                  | 02-03 Nos.                      | 900 Kg Tonner                       | 3-10 kg/cm <sup>2</sup> & Amb                                 | Toxic                 |               |

Emergency response plan to handle chemical spills and leakages.

**Emergency Control Facilities & Emergency Mitigation Measures are as;**

| Sr. No.  | Chemical Name                        | Possible Scenario   | Emergency Mitigation measures  | Initial isolation and protection distance.  | First Aid in case of Exposure                        |  |   |  |                                     |                                      |   |                                      |          |            |          |            |    |     |     |     |     |     |   |
|--|--------------------------------------|---|--|---|--|--|---|--|-------------------------------------|--------------------------------------|---|--------------------------------------|----------|------------|----------|------------|----|-----|-----|-----|-----|-----|---|
| 1.   | Sodium Cyanide                       | Poison<br>Toxic<br>Water Sensitive                            | <p>Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and or toxic fumes.</p> <p>All equipment used when handling the product must be grounded.</p> <p>Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.</p> <p>Stop leak if you can do it without risk.</p> <p>A vapor-suppressing foam may be used to reduce vapors.</p> <p><b>DO NOT GET WATER INSIDE CONTAINERS.</b></p> <p>Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.</p> <p>Prevent entry into waterways, sewers, basements or confined areas.</p> <p>Isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at</p> | <table border="1"> <thead> <tr> <th colspan="2">Small Spills<br/>(From a small Package or small Leak)</th> <th colspan="2">Large Spills<br/>(from a large package or many small Packages)</th> </tr> <tr> <th>First Isolate in Directions (meter)</th> <th>Then Protect Persons Downwind during</th> <th>First Isolate in all Directions (Meter)</th> <th>Then Protect persons Downwind during</th> </tr> <tr> <td>Day (KM)</td> <td>Night (KM)</td> <td>Day (KM)</td> <td>Night (KM)</td> </tr> </thead> <tbody> <tr> <td>30</td> <td>0.1</td> <td>1.1</td> <td>100</td> <td>0.3</td> <td>1.2</td> </tr> </tbody> </table> | Small Spills<br>(From a small Package or small Leak) |  | Large Spills<br>(from a large package or many small Packages) |  | First Isolate in Directions (meter) | Then Protect Persons Downwind during | First Isolate in all Directions (Meter) | Then Protect persons Downwind during | Day (KM) | Night (KM) | Day (KM) | Night (KM) | 30 | 0.1 | 1.1 | 100 | 0.3 | 1.2 | <p><b>FIRST AID</b><br/>Call 108 or emergency medical service.</p> <p>Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.</p> <p>Move victim to fresh air if it can be done safely.</p> <p>Give artificial respiration if victim is not breathing.</p> <p>Do not perform mouth-to-mouth resuscitation if victim ingested or inhaled the substance; wash face and mouth before giving artificial respiration. Use a pocket mask equipped with a one-way valve or other proper respiratory medical device.</p> <p>Administer oxygen if breathing is difficult.</p> <p>Remove and isolate contaminated clothing and shoes.</p> |
| Small Spills<br>(From a small Package or small Leak) |                                      | Large Spills<br>(from a large package or many small Packages) |  |   |  |  |   |  |                                     |                                      |   |                                      |          |            |          |            |    |     |     |     |     |     |   |
| First Isolate in Directions (meter)                  | Then Protect Persons Downwind during | First Isolate in all Directions (Meter)                       | Then Protect persons Downwind during   |   |  |  |   |  |                                     |                                      |   |                                      |          |            |          |            |    |     |     |     |     |     |   |
| Day (KM)   | Night (KM)                           | Day (KM)  | Night (KM)   |   |  |  |   |  |                                     |                                      |   |                                      |          |            |          |            |    |     |     |     |     |     |   |
| 30   | 0.1                                  | 1.1   | 100  | 0.3   | 1.2  |  |   |  |                                     |                                      |   |                                      |          |            |          |            |    |     |     |     |     |     |   |

| Sr. No.  | Chemical Name                        | Possible Scenario   | Emergency Mitigation measures   | Initial isolation and protection distance.   | First Aid in case of Exposure  |  |   |  |                                     |                                      |                      |                                      |   |
|--|--------------------------------------|---|---|--|--|--|---|--|-------------------------------------|--------------------------------------|----------------------|--------------------------------------|---|
|  |                                      |   | <p>least 25 meters (75 feet) for solids.</p>  |  | <p>In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.</p> <p>In case of skin contact with Hydrofluoric acid (UN1790), if calcium gluconate gel is available, rinse 5 minutes, then apply gel. Otherwise, continue rinsing until medical treatment is available.</p> <p>For minor skin contact, avoid spreading material on unaffected skin.</p> <p>Keep victim calm and warm.</p> <p>Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.</p> |  |   |  |                                     |                                      |                      |                                      |   |
| 2.   | Chlorine                             | Toxic   | <p>Contact with gas or liquefied gas may cause burns, severe injury and or frostbite.</p> <p>Runoff from fire control or dilution water may cause environmental contamination. Do not touch or walk through spilled material.</p> | <table border="1"> <thead> <tr> <th colspan="2">Small Spills<br/>(From a small Package or small Leak)</th> <th colspan="2">Large Spills<br/>(from a large package or many small Packages)</th> </tr> <tr> <th>First Isolate in Directions (meter)</th> <th>Then Protect Persons Downwind during</th> <th>First Isolate in all</th> <th>Then Protect persons Downwind during</th> </tr> </thead> </table> | Small Spills<br>(From a small Package or small Leak)   |  | Large Spills<br>(from a large package or many small Packages) |  | First Isolate in Directions (meter) | Then Protect Persons Downwind during | First Isolate in all | Then Protect persons Downwind during | <p><b>FIRST AID</b><br/>Move victim to fresh air. Call 108 or emergency medical service.</p> <p>Give artificial respiration if victim is not breathing.</p> <p>Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give</p> |
| Small Spills<br>(From a small Package or small Leak) |                                      | Large Spills<br>(from a large package or many small Packages) |   |  |  |  |   |  |                                     |                                      |                      |                                      |   |
| First Isolate in Directions (meter)                  | Then Protect Persons Downwind during | First Isolate in all  | Then Protect persons Downwind during  |  |  |  |   |  |                                     |                                      |                      |                                      |   |

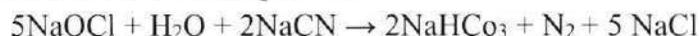
Point wise compliance to the mitigation measures as Per Ministry's Office Memorandum 31st October, 2019 for Projects Located in Critically Polluted Area

Quantified and specific compliance of CPA OM dated 31.10.2019 is submitted.

## 22. Deliberations by the EAC

During deliberations, EAC discussed the following issues:

- **PP submitted the hypochlorite treatment for cyanide removal.**
  - i. The effluent from the cyanide stream will be collected in a separate collection tank.
  - j. check pH level.
  - k. Add lime solution to wastewater to be treated and raise pH up to 10.5.
  - l. Then it will be batch-wise transferred to the 10 KL treatment tank facilitated with stirrer.
  - m. After testing the cyanide content which will be almost between the ranges of 30 to 40 ppm.
  - n. add approx. 60 Kgs of sodium hypochlorite solution to the effluent under stirring for the first 3 hours and then check the sample for the absence of cyanide content.
  - o. After the QC Check transfer the effluent to the primary treatment tank where it will be further treated.
  - p. If the qualities of cyanide to be destroyed are small enough. It will be perfectly acceptable to use sodium hypochlorite.
- PP submitted the details of different ETP units for cyanide stream- If the qualities of cyanide to be destroyed are small enough. It will be perfectly acceptable to use sodium hypochlorite. The following equation shows the reaction pattern.



| Sr. No. | Name of Unit  | No of Unit | Capacity |
|---------|---|------------|----------|
| 1       | Collection Cum Equalization Tank                                    | 1          | 50 KL    |
| 2       | Cyanide Stream Treatment Tank with Sodium Hypochlorite Dosing Tank. | 1          | 10 KL    |

**Treatment Hrs: 3 Hrs per batch**

### **EFFLUENT QUALITY BEFORE TREATMENT & AFTER TREATMENT IN ETP FOR CYANIDE STREAM**

| Sr. No. | Category of Wastewater    | Before Treatment | Final Treated Effluent | CETP Inlet Norms |
|---------|---------------------------|------------------|------------------------|------------------|
| 1.      | pH                        | 6 to 8           | 6.5 to 7.5             | 6.5 to 8.0       |
| 2.      | COD (mg/l)                | 8000-10000       | 1000-1200              | <1500            |
| 3.      | BOD (mg/l)                | 1000-2000        | 100-300                | <500             |
| 4.      | TDS (mg/l)                | 4000-7000        | 7000-10000             | No TDS Limit     |
| 5.      | Ammonical Nitrogen (mg/l) | 30-50            | <20                    | <50              |
| 6.      | TSS (mg/l)                | 250-400          | <200                   | <600             |
| 7.      | Cyanide in ppm            | 30-40            | NIL                    | <0.2             |

- **PP submitted the Revised Budget Allocation for Environmental Management**

| Sr. No       | Unit                   | Detail   | Capital Cost (Rs. In Lakhs) | Total Recurring Cost per Annum (Rs. In Lakhs) |
|--------------|------------------------|--|-----------------------------|---|
| 1            | Wastewater             | STP + ETP + One time membership charge of CETP   | 120                         | 217   |
| 2            | Air                    | Stack and APCM and its maintenance, Acoustic enclosure   | 50                          | 28  |
| 3            | Hazardous Management   | Hazardous waste storage, transportation and Disposal   | 30                          | 34.9  |
| 4            | Fire & Safety          | Safety Equipment (PPE, fire extinguishers, First Aid Kit, Smoke detector, Fire Sprinkler System Ventilation, Fire Hydrant System, Fire Proximity Suit) | 55                          | 2.00  |
| 5            | AWH Monitoring         | ---  | 5                           | 0.75  |
| 6.           | Green Belt Development | Development Green belt area and its maintenance  | 25                          | 2.00  |
| 7.           | Occupational Health    | First Aid Kit, Medicine, Beds, other facility  | 5                           | 0.32  |
| 8.           | DCS Automation System  | DCS automation system for process, scrubber, solvent recovery  | 10                          | 5   |
| <b>Total</b> |                        |  | <b>300</b>                  | <b>289.97</b>                                 |

• PP submitted the Bifurcation of Hazardous Management cost

| Waste type                      | Rate in RS. per MT | calculation        |
|---------------------------------|--------------------|--------------------|
| ETP sludge waste to landfilling | 1350/-             | 1200*1350= 1620000 |
| Residue to Co processing waste  | 5500/-             | 340*5500=1870000   |
| <b>Total</b>                    |                    | <b>3490000</b>     |

|   |   |
|---|---|
| Action plan to install Chlorine detector at workplace | <ul style="list-style-type: none"> <li>➤ Unit would like to inform that 1 nos. of chlorine leak detectors will be procured and installed near Scrubber area.</li> <li>➤ Unit will provide Chlorine hood provision for containment of Chlorine gas leakage into alkali scrubber in case there is Cl<sub>2</sub> leakage from valve.</li> <li>➤ Unit will also provide emergency chlorine leakage control measures like chlorine kit, chlorine tonner hood vent connected to alkali scrubber.</li> <li>➤ Additionally, CEMS System will be installed for process gas emission stack and the same will be connected with GPCB server.</li> </ul> |
|---|---|

#### OTHER NON-HAZARDOUS WASTE

| Sr. No. | Waste              | Quantity      | Mode Of Disposal   |
|---------|--------------------|---------------|--|
| 1.      | Glass Waste (Z 13) | 0.01 MT/Month | Disposal /sold to scrap processors   |
| 2.      | Paper waste (Z 44) | 0.1 MT/Month  | At notified area facility/ sold to scrap processors  |
| 3.      | Fly Ash            | 43.2 MT/Month | Send to authorize Brick manufactures   |
| 4.      | E – Waste          | 0.1 MT/Month  | Collection, Storage, Transportation & Disposal by selling to authorized Recyclers  |
| 5.      | Battery waste      | 0.04 MT/Month | Collection, Storage, Transportation & Disposal by selling to authorized Recyclers  |
| 6.      | STP Sludge         | 48 MT/Annum   | Collection, Storage and use as manure in gardening.  |
| 7.      | Dry Solid Waste    | 4.73 MT/Annum | Collection, Storage and Management as per Municipal Solid waste Management Rule-2016   |
| 8.      | Wet Solid Waste    | 3.15 MT/Annum | Collection, Storage, Conversion into compost and use as manure for gardening as per Municipal Solid waste Management Rule-2016 |

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC constituted under the provisions of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the PP in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.

The EAC noted that the PP has given an undertaking to the effect that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

The EAC noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The EAC deliberated the Onsite and Offsite Emergency plans and also the various mitigation measures proposed during the implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, as amended from time to time.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for the grant of environmental clearance.

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

24. The EAC, after detailed deliberations, **recommended the project for the grant of environmental clearance, subject to the compliance of the terms and conditions as under, and general terms and conditions in Annexure-I:**

- (i) Multicyclone followed by bag filter along with stack of adequate height shall be provided to agrowaste/ Briquette fired 2 no. Thermic Fluid heater (4 lac KCal/Hr.) and 2 no. of Boiler (2 MT /Hr.) to achieve emission standards as per CPCB.

- (ii) Two stage caustic Scrubbers system shall be provided to control process emissions viz. Hcl and SO<sub>2</sub>. Two stage water Scrubbers system shall be provided to control process emissions viz. NH<sub>3</sub>. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- (iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB. Odour management plan shall be implemented.
- (iv) The total fresh water requirement from GIDC water supply shall not exceed 181 m<sup>3</sup>/day.
- (v) NOC from the Concerned Local authority shall be obtained before start of the construction of plant and drawing of the GIDC water supply for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (vi) Industrial effluent generation shall not exceed 152 m<sup>3</sup>/day and that shall be treated through Primary ETP and then sent to CETP of M/s. NIA, Nandesari for final disposal. Treated effluent should be passed through holding tank and Online pH meter, flow meter and TOC analyzer should be installed. 7 KLD Boiler blowdown and 7 KLD cooling tower blow down shall be treated and recycled and reused in the industrial process. PP shall ensure adequate treatment system is in place for Cyanide effluent stream. Sewage of 4 KLD shall be treated through STP and reused for horticultural purpose.
- (vii) The PP shall develop/maintain 5-10 m thick greenbelt over an area of 953.40 sq. m. (35.28 %) within plant premises, and 400 sq. m (14.80 %) outside the GIDC at Dhampur village , preferably within one year of grant of EC. The number of saplings shall be planted and should be of sufficient height, preferably 6-ft. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- (viii) 60 KL X 1 No underground RCC water storage tank shall be provided for rainwater harvesting. Stored rainwater shall be used in washing, cooling, domestic etc after necessary pre-treatment.
- (ix) All the hazardous waste shall be managed and disposed as per the HWM Rules 2016. Hazardous waste such as Distillation Residue and Off Specification Products shall be either sent to common incineration site or sent for coprocessing. Solid waste shall be segregated into dry and wet garbage at site in accordance to the Solid Waste Management Rules, 2016. Wet waste shall be converted into compost and used as manure for greenbelt development. Fly ash shall be handed over to the Brick manufacturers.
- (x) Monitoring of the compliance of EC conditions shall be submitted with third party audit every year.
- (xi) As proposed, an amount of ₹ 94 lakhs shall be allocated towards CER.

- (xii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage environment officials. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1<sup>st</sup> July of every year for the activities carried out during previous year.
- (xiii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is ₹ 300 Lakhs Capital cost) and Rs. 289.97 lakhs per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1<sup>st</sup> July of every year for the activities carried out during previous year.
- (xiv) No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.
- (xv) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- (xvi) The project proponent shall comply with the environment norms for synthetic organic chemical as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 608 (E), dated 21. 7.2010 under the provisions of the Environment (Protection) Rules, 1986.
- (xvii) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The occupier of new as well as expansion projects shall be required to comply with the provisions of the MSHIC Rules, 1989 including notifying their activities or seeking site approval from the concerned authorities, to address operational safety aspects. In doing so, various schedule, particularly Schedule-5 of the said rules may be referred.
- (xviii) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.
- (xix) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.
- (xx) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

- (xxi) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.
- (xxii) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (xxiii) The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (xxiv) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.
- (xxv) As proposed, PP shall comply with the following mitigation measures as Per Ministry's Office Memorandum 31st October, 2019 regarding Projects located in Critically Polluted Area:

| Environment | Mitigation Measures   | Compliance  |
|-------------|---|---|
| Air         | i) Stack emission level should be stringent than the existing standards in terms of the identified critical pollutants. | Unit will provide multi dust collector and bag filter and adequate stack height as APCM to control air emission of flue gas and two stage water scrubbers and two stage alkali scrubbers to control process emission. unit has agreed to comply with this condition and air emission level will be 80% from existing terms of the identified critical pollutants.<br><br>Details are given below slide. |

**FLUE GAS EMISSION:**

| Sr. No. | Source of emission With Capacity            | Stack Height (meter) | Type of Fuel          | Quantity of Fuel MT/Day | Emission Standard  | Emission Standard as per Critically Polluted Area   | Air Pollution Control Measures (APCM) |
|---------|---|----------------------|-----------------------|-------------------------|--|---|---------------------------------------|
| 1.      | Thermic Fluid heater No. 1 (4 lac KCal/Hr.) | 13                   | Agro waste/ briquette | 15 MT/Day               | PM <sub>10</sub> < 150 mg/Nm <sup>3</sup><br>SO <sub>x</sub> < 100 ppm | PM <sub>10</sub> < 120 mg/Nm <sup>3</sup><br>SO <sub>x</sub> < 80 ppm<br>NO <sub>x</sub> < 40 ppm | Cyclone + bag filter                  |
| 2       | Thermic Fluid heater No. 2 (4 lac KCal/Hr.) | 13                   | Agro waste/ briquette | 15 MT/Day               | NO <sub>x</sub> < 50 ppm   |   | Cyclone + bag filter                  |

|   |                             |    |                          |            |  |  |                       |
|---|-----------------------------|----|--------------------------|------------|--|--|-----------------------|
| 3 | Boiler No. 1<br>(2 MT /Hr.) | 30 | Agro waste/<br>briquette | 12 MT/Day  |  |  | Cyclone & Bag filter  |
| 4 | Boiler No. 2<br>(2 MT /Hr.) | 30 | Agro waste/<br>briquette | 12 MT/Day  |  |  | Cyclone & Bag filter  |
| 5 | DG Set<br>250 KVA           | 11 | HSD                      | 25 Lit/Hr. |  |  | Adequate Stack Height |

**PROCESS GAS EMISSION**

| Sr. No. | Vent Attached to | Height From Ground Level | Expected Pollutants   | Emission Standard                             | Emission Standard as Per Critically Polluted Area | Air Pollution Control System |
|---------|------------------|--------------------------|-----------------------|---|---|------------------------------|
| 1       | Scrubber No. 1   | 15                       | HCl                   | 9 mg/Nm <sup>3</sup>                          | 7.2 mg/Nm <sup>3</sup>                            | Two stage caustic scrubbers  |
| 2       | Scrubber No. 2   | 15                       | HCl                   | 9 mg/Nm <sup>3</sup>                          | 7.2 mg/Nm <sup>3</sup>                            | Two stage caustic scrubbers  |
| 3       | Scrubber No. 3   | 15                       | SO <sub>2</sub> , HCl | 40 mg/Nm <sup>3</sup><br>9 mg/Nm <sup>3</sup> | 32 mg/Nm <sup>3</sup><br>7.2 mg/Nm <sup>3</sup>   | Two stage caustic scrubbers  |
| 4       | Scrubber No. 4   | 15                       | Ammonia               | 175 mg/Nm <sup>3</sup>                        | 140 mg/Nm <sup>3</sup>                            | Two stage water scrubbers    |

|     |  |  |
|-----|--|--|
| Air | ii) CEMS may be installed in all large / medium red category industries (Air polluting) and connected to SPCB and CPCB server. | CEMS is applicable unit will install it.   |
| Air | iii) Effective fugitive emission control measures should be imposed in the process, transportation, packing etc.               | <p>Fugitive emission control measures will be adopted as below,</p> <p>- Packaging as well as charging of solid material will be handled in closed system.</p> <p>The major quantity of powder transfer will be through closed conveying systems avoiding spills and dusting.</p> <p>VOC emission control</p> <ul style="list-style-type: none"> <li>Local exhausts force ventilation and roof top ventilators will be provided at process areas.</li> <li>Pumps handling chemicals will be provided with mechanical seals.</li> <li>Spillages will be prevented by providing drip pans, proper handling equipment, Spill control procedures will be adopted.</li> <li>Housekeeping teams will be available to deal with the situation promptly.</li> <li>Fixed VOC monitors will be installed in storage area and portable VOC monitor will be also used for area monitoring.</li> <li>Workplace monitoring will be conducted through external agencies.</li> </ul> |

|     |   |   |
|-----|---|---|
|     |   | <ul style="list-style-type: none"> <li>• Transportation will be always through tankers, Iso containers and drums.</li> <li>• Open transportation will be totally avoided.</li> <li>• Above system followed at site and will be implemented for proposed project.</li> </ul>   |
| Air | iv) Transportation of materials by rail/conveyor belt, wherever feasible.   | Raw material and products will be transported in low quantities to single user. Site is well connected by road. Hence, transportation of materials by rail/conveyor belt, is not feasible.  |
| Air | v) Encourage use of cleaner fuels (pet coke/ furnace oil/ LSHS may be avoided).   | Unit will use Briquette/agro waste as fuel.   |
| Air | vi) Best available technology may be used. For example, usages of EAF/SAF/IF in place of Cupola furnace. Usage of supercritical technology in place of sub-critical technology. | <p>products are non-polluting products. There conversion ratio is more than 99%. More than 95% yield will be obtained. In this manufacturing aspect it is best available technology.</p> <p>In ETP unit will treat the effluent using hydro cavitation treatment. Due to this treatment COD will be bring down and match the inlet norms of CETP. Effluent will be colourless.</p> <p>For air pollution unit has proposed two stage scrubbers instead of single stage scrubber to bring down the level of pollutants more than 50% of standard norms.</p> |
| Air | vii) Increase of green belt cover by 40 % of the total land area beyond the permissible requirement of 33% wherever feasible.   | <p>Will be Complied.</p> <p>Total 2702 m<sup>2</sup> land area is available at site; out of this, The green belt area will be 953.40 sq. m. (35.28 %) within plant premises, and 400 sq. m (14.80 %) outside the GIDC. Total green belt area will be 1353.4 sq. m. (50.08%).</p> <p>Letter from Association is submitted.</p>   |
| Air | viii) Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.  | Total 2702 m <sup>2</sup> land area is available at site; out of this, The green belt area will be 953.40 sq. m. (35.28 %) within plant premises, and 400 sq. m (14.80 %) outside the GIDC. Total green belt area will be 1353.4 sq. m. (50.08%)  |
| Air | ix) Assessment of carrying capacity of transportation load on roads inside the industrial premises. If the roads required to be widened, shall be prescribed as a condition.    | <p>Pucca road will be provided within industrial premises having adequate carrying capacity and well maintaining it.</p> <p>Detailed assessment of carrying capacity of transportation load on GIDC roads is carried out and mentioned in the chapter 3 of EIA Report</p>   |

Traffic counts are important to calculate the existing and proposed load on the existing Road for Project.

Project site is in GIDC Nandesari. Units will use the road passing at the project site from the internal road of GIDC Nandesari which is connected to the GIDC main road. Thus, a traffic survey has been carried out for the stated route from the internal road of GIDC Nandesari to GIDC main Road. Studied route is shown in figure below:

Surveyed Route: Road from internal road of GIDC Nandesari to GIDC main road.

Details regarding the traffic survey are:

- Traffic counts were collected and recorded in 4 hours intervals.
- Morning period (pick hours) survey was carried out from 8:00 to 12:00 hrs.
- Evening period (pick hours) survey was carried out from 16:00 to 20:00 hrs.

Traffic counts observed during the above survey are tabulated below:

**TABLE**

**TRAFFIC COUNT TABLE**

| Type of Vehicles                                 | At Project site: Road from internal road of<br>GIDC Nandesari to GIDC main road |                    |
|--|---|--------------------|
|  | Timings of Survey (hrs)   |                    |
|  | 08.00-12.00 (4 hr)  | 16.00-20.00 (4 hr) |
| Large Trailer                                    | 16  | 12                 |
| Heavy (Bus, Truck, etc)                          | 60  | 48                 |
| Medium (Tractors, light commercial vehicles etc) | 86  | 52                 |
| Light (Car, Jeep, Pickup Van etc.)               | 100   | 84                 |
| 3-Wheeler (Rickshaw, loading)                    | 90  | 80                 |
| 2-Wheeler (Scooter, motorcycle, cycle etc)       | 250   | 180                |

**TABLE:**

**ASSESSMENT OF EXISTING TRAFFIC LOAD**

| Type of Vehicles                                 | At Project site: Road from internal road of<br>GIDC Nandesari to GIDC main road |  | PCU factor as<br>per Indian<br>Road Code |
|--|---|--|--|
|  | Average Vehicles Per<br>Hour (Worst Case)                                       | Equivalent PCU<br>(Passenger Car Unit) per<br>hour |  |
| Large Trailer                                    | 14  | 63   | 4.50                                     |
| Heavy (Bus, Truck, etc)                          | 54  | 162  | 3.00                                     |
| Medium (Tractors, light commercial vehicles etc) | 69  | 103.5  | 1.50                                     |
| Light (Car, Jeep, Pickup Van etc.)               | 92  | 92   | 1.00                                     |
| 3-Wheeler (Rickshaw, loading)                    | 85  | 85   | 1.00                                     |
| 2-Wheeler (Scooter, motorcycle, cycle etc)       | 215   | 107  | 0.50                                     |
| <b>Total PCU/hr</b>                              |   | 613  |  |
| Width of Road (m)                                |   | 9  |  |
| <b>Design PCU per hour</b>                       |   | 1500   |  |
| Existing PCU per hour                            |   | 613  |  |

**TABLE:**

**ASSESSMENT OF PROPOSES TRAFFIC LOAD**

| Type of Vehicles                                 | At Project site: Road from internal road of<br>GIDC Nandesari to GIDC main road |  | PCU factor as<br>per Indian<br>Road Code |
|--|---|--|--|
|  | Average Vehicles Per<br>Hour (Worst Case)                                       | Equivalent PCU<br>(Passenger Car Unit) per<br>hour |  |
| Large Trailer                                    | 0   | 0  | 4.50                                     |
| Heavy (Bus, Truck, etc)                          | 3   | 9  | 3.00                                     |
| Medium (Tractors, light commercial vehicles etc) | 5   | 7.50   | 1.50                                     |
| Light (Car, Jeep, Pickup Van etc.)               | 10  | 10   | 1.00                                     |
| 3-Wheeler (Rickshaw, loading)                    | 15  | 15   | 1.00                                     |
| 2-Wheeler (Scooter, motorcycle, cycle etc)       | 25  | 12.50  | 0.50                                     |
| <b>Total PCU/hr</b>                              |   | 54   |  |
| <b>Total PCU per hour<br/>after the Proposed</b> |   | 667  |  |

| Project  |  |  |
|--|--|--|
| <p><b>INTERPRETATION OF TRAFFIC STUDY</b></p> <p>Traffic survey has been carried out on the road from internal road of GIDC Nandesari to GIDC main road. Based on the traffic survey, hourly vehicular traffic has been calculated. Considering worst case scenario, the average number of vehicles observed for 4 hours has been taken as hourly counts. Passenger Car Unit (PCU) has been calculated by applying PCU factor. The proposed load of trucks due to the movement of raw materials, fuel and products has been calculated. A design capacity of road has been taken from the Indian Road Code. Assessment of proposed traffic load is given in the above table. From the above table, it can be concluded that even considering the worst case; there will be minor increase in vehicular load due to the proposed project. However, the total traffic load even after the proposed project will be very low compared to the design capacity of roads. Adequate parking arrangements will be provided within the industrial premises.</p> <p>As there is no major increase in traffic due to the proposed project, there will be less chance of an increase in vehicular pollution. However, the unit will take adequate measures by instructing transporters to use only PUC certified trucks/vehicles and carrying out regular service and maintenance of them.</p> |  |  |
| Water  | i) Reuse / recycle of treated wastewater, Wherever feasible.   | Unit will recycle 7 KLD of boiler blow down and 7 KLD cooling tower blowdown for preparing lime solution use in the ETP and 4 KLD sewage will be treated in STP and reuse in gardening.  |
| Water  | ii) Continuous monitoring of effluent quality / quantity in large and medium red category industries (water polluting).                        | Unit will install flow meter at inlet point for water consumption. Unit will send treated effluent via tanker to CETP. Unit is having membership of CETP-M/s. NIA and effluent will be transported through dedicated tankers of CETP only.<br><br>Continuous monitoring of effluent quality is not applicable as small scale industry. |
| Water  | iii) A detailed water harvesting plan may be submitted by the project proponent.   | For that, 60 KL X 1 No underground RCC water storage tank will be provided for rainwater harvesting.<br>Stored rainwater will be used in washing, cooling, domestic etc after necessary pre-treatment.   |
| Water  | i) Zero liquid discharge wherever techno economically feasible.  | Financially not feasible. Unit will send treated effluent into ETP and send to CETP Nandesari. Unit have membership of CETP-M/s. Nandesari Industries Association.   |
| Water  | ii) In case, domestic wastewater generation is more than 10 KLD, the industry may install STP.   | Domestic wastewater generation will be 4 KLD. The unit will treat sewage into in-house STP plants and reuse water for gardening purpose.   |
| Land   | i) Increase of green belt cover by 40 % of the total land area beyond the permissible requirement of 33%, wherever, feasible for new projects. | Total 2702 m <sup>2</sup> land area is available at site; out of this, The green belt area will be 953.40 sq. m. (35.28 %) within plant premises, and 400 sq. m (14.80 %) outside the GIDC. Total green belt area will be 1353.4 sq. m. (50.08%).  |

|      |  |  |
|------|--|--|
| Land | ii) Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc. | Total 2702 m <sup>2</sup> land area is available at site; out of this, The green belt area will be 953.40 sq. m. (35.28 %) within plant premises, and 400 sq. m (14.80 %) outside the GIDC. Total green belt area will be 1353.4 sq. m. (50.08%) |
| Land | ii) Dumping of waste (fly ash slag, red mud, etc.) may be permitted only at designated location approved by SPCBs / PCCs.              | Unit will be dumping of fly ash slag, red mud, etc like wastes to only permitted at designated location approved by SPCBs / PCCs.  |
| Land | v) More stringent norms for management of hazardous waste. The waste generated should be preferably utilized in co processing.         | Unit will follow this condition. Management of Hazardous waste is given in below table:  |

| Sr. No. | Name of Hazardous Waste   | Source of Generation       | Category | Total Quantity MT/Year | Mode of Disposal   |
|---------|---|----------------------------|----------|------------------------|--|
| 1.      | Effluent Treatment Plant Sludge   | From ETP                   | 35.3     | 1200                   | Collection, Storage, Transportation, Disposal at TSDF site authorized by the GPCB.             |
| 2.      | Used Oil  | From Lubrication           | 5.1      | 1                      | Collection, Storage, Transportation, Reused, Disposal at by Selling registered refiners.       |
| 3.      | Empty Barrels/ Containers/ Liners Contaminated with hazardous chemicals/ wastes | Material Handling          | 33.1     | 30                     | Collection, Storage, Decontamination, Transportation and Reuse or sell to registered recyclers |
| 4.      | Distillation Residue  | From manufacturing process | 28.1     | 340                    | Collection, Storage, transport to TSDF and will be sent for co processing in cement industry   |

First Preference will be co-processing for disposal of waste.

|                               |   |  |
|-------------------------------|---|--|
| Other conditions (Additional) | i) Monitoring of compliance of EC conditions may be submitted with third party audit every year.  | Noted by the unit.   |
| Other conditions (Additional) | ii) The % of the CER may be at least 1.5 times the slabs given in the OM dated 01. 05. 2018 for SPA and 2 times for CPA in case of Environmental Clearance. | Fund allotted for CER activity will be 2% of additional capital investment (Greenfield Field project). As the project falls under CEPI area, the unit will allot an additional 2% fund towards CER activity. Therefore, the total fund allotted will be 4% of investment, which will be Rs. 94 Lakhs |

#### Agenda No. 71.4

**Proposed addition of Synthetic Organic Chemicals manufacturing in existing Non-EC product manufacturing unit with total production capacity of 11,066 TPA (Existing: 3000 TPA, proposed: -806 TPA) located at Plot No: N14/2, MIDC Tarapur, Boisar, Taluka & District-Palghar, Maharashtra by M/ VE Caps LLP (NIKITA GROUP OF COMPANIES)- Reconsideration of Environmental Clearance**

**[Proposal No. IA/MH/IND3/448430/2023, File No : IA-J-11011/145/2022-IA-II(I)**

- The proposal is for the Environmental Clearance to the Proposed addition of Synthetic Organic Chemicals manufacturing in existing non-EC products manufacturing unit with total production capacity of 11,066 TPA (Existing: 3000 TPA, proposed: -8066 TPA) located at Plot No: N14/2, MIDC Tarapur, Boisar, Taluka & District-Palghar, Maharashtra by M/s M/s. VE Caps LLP (NIKITA GROUP OF COMPANIES).
- The project/activity is covered under Category 'B' of item 5(f), Synthetic organic chemicals industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) but due to applicability of general condition i.e. project site is located in a critically polluted area, the proposal is treated as Category A and the proposal requires appraisal at central level by the sectoral EAC in the MOEF&CC.
- The ToR was issued by the Ministry, vide letter no. IA-J-11011/145/2022-IA-II(I) dated 11.7.2022 and further amendment in ToR was issued by the Ministry vide letter IA-J-11011/145/2022-IA-II(I) dated 16.8.2023. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is an Expansion case. The proposal was earlier considered in the 70<sup>th</sup> EAC meeting held on 4<sup>th</sup> December, 2023 in which proposal was deferred, and now the proposal is placed in this 71<sup>st</sup> EAC meeting on 29<sup>th</sup> December 2023, wherein the PP along with accredited Consultant, Ecogreen Enviro Services (NABET Accreditation No.: NABET/EIA/2124/SA 0185 valid till 21.12.2023] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:
- The PP reported that the proposed land area is **3467.50** sq. meter, no R& R is involved in the Project. The details of products to be manufactured are as follows:

| S. No. | Product Name  | Existing quantity in TPA | Newly Proposed/ Modification of existing quantity in TPA | Final proposed Quantity-TPA |
|--------|---|--------------------------|--|-----------------------------|
| 1      | Vesol - EG (Polyol)   | 2520                     | -2020  | 500                         |
| 2      | Glycol Solutions  | 480                      | -440   | 40                          |
| 3      | Phenolic Resin, Antioxidant, Antioxidant Formulations such as antiox BCD, antiox BCD emulsion, Antiox BCD dispersion etc.,  | -                        | +8004  | 8004                        |
| 4      | Perfumery Aromatic Aldehydes and Ketone Such As Benzaldehyde, Acetophenone etc.   | -                        | +690   | 690                         |
| 5      | Perfumery Esters Such as Aldehyde C16, Melonal & Styrallyl Acetate etc.   | -                        | +210   | 210                         |
| 6      | Perfumery Aliphatic Aldehydes Such as Aldehyde C8, C10, C12 ETC.  | -                        | +420   | 420                         |
| 7      | Tops and High boilers (By-Product) Tops and higher Boiling fractions of the Job Work, R&D Chemicals and other Speciality Chemicals which can be used in low cost applications, as solvents or as fuel | -                        | +240   | 240                         |
| 8      | Ammonium /calcium /sodium Salts from acids  | -                        | +120   | 120                         |
| 9      | Aqueous Blend of Ethoxylat Product such as Nimul, Nimul 320, Nimul SP 2760, Nimul SP 2780, Nimul Tetragon.  | -                        | +152   | 152                         |
| 10     | Perfumery Primary Alcohols such as Phenyl Ethyl Alcohol, Styrene Oxide ETC  | -                        | +480   | 480                         |

|    |  |             |             |               |
|----|--|-------------|-------------|---------------|
| 11 | Latex Surfactant Product such as Foamax, Stabilol, Fonesecca-30, Waxmul ETC. | -           | +60         | 60            |
| 12 | Job works  | -           | +100        | 100           |
| 13 | R & D products   |             | +50         | 50            |
|    | <b>Total</b>   | <b>3000</b> | <b>8066</b> | <b>11,066</b> |

5. The PP reported that there is no violation case as per the Notification No. S.O. 804(E) dated 14.03.2017 and no direction is issued under the E(P) Act/Air Act/Water Act
6. The PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wild Life Corridors etc. within 10 km distance from the project site. Ranganga River: 3.1 Km in NW Jununa River: 1.5 Km in SE Dudh River: 2.95 Km in SE Sea: 5.0 Km in W Tembhi Lake: 2.5 Km in NW Alewadi Lake: 3.0 Km in SW. There is no forest land involved in the proposed project. Two Schedule-I species i.e Indian peafowl, Blyth's kingfisher were observed in the 10 km radius from the proposed project for which conservation plan has been prepared and submitted. Waterbodies namely Banganga River: 3.1 Km in NW Jununa River: 1.5 Km in SE Dudh River: 2.95 Km in SE Arabian Sea: 5.0 Km in W Tembhi Lake: 2.5 Km in NW Alewadi Lake: 3.0 Km in SW are located within 10km distance.
7. Ambient air quality monitoring was carried out at 8 locations during 1<sup>st</sup> December 2022 to 28<sup>th</sup> February 2023 and the baseline data indicates the ranges of concentrations as: PM 10 (26.40 µg/m<sup>3</sup> - 86.35 µg/m<sup>3</sup>), PM2.5 (13.54 µg/m<sup>3</sup> - 48.59 µg/m<sup>3</sup>), SO<sub>2</sub> (8.20 µg/m<sup>3</sup> - 39.87 µg/m<sup>3</sup>), NO<sub>x</sub> (14.10 µg/m<sup>3</sup> - 49.51 µg/m<sup>3</sup>), CO (0.09 mg/m<sup>3</sup> - 2.97 mg/m<sup>3</sup>) & VOC (BDL). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs of the proposed expansion project would be 0.208 µg/m<sup>3</sup>, 0.104 µg/m<sup>3</sup>, 0.545 µg/m<sup>3</sup> & 0.195 µg/m<sup>3</sup> with respect to PM10, PM2.5, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations values of all parameters are within the National Ambient Air Quality Standards (NAAQS).
8. The PP reported that the total water requirement will be 19.0 KLD/Day (Fresh Water: 4.27KLD + Reuse: 14.7 KLD) which will be met through MIDC Water Supply. The PP has submitted revised water balance in which total water requirement will be 19 KLD out of which fresh water requirement from MIDC water supply will be 10.35 KLD and remaining water of 8.65 KLD will be sourced from recycled water. The Committee suggests that sewage shall be treated in the STP. Existing industrial effluent generation is NIL. Total proposed wastewater stream 7.7 KLD generated from Process, Boiler and Cooling will be treated in in-house ETP along with 7.3 KLD wastewater of other two sister concern units of Nikita group of Companies. Treated water from ETP will be reused within premises. ETP Sludge will be sent to nearest TSDF site. **As per revised water balance** effluent generation will be 9.3 KLD of which industrial effluent will be 7.7 KLD and sewage will be 1.6 KLD. Total wastewater generated from process will be treated in solvent stripper. Then treated water from solvent stripper will be treated in in-house MEE. MEE condensate will be treated in in-house ETP (Primary + Secondary + Tertiary) along with waste water from Boiler & Cooling. Mother Liquor from MEE will be sent to in-house Agitated Thin Film Dryer (ATFD) and dry salt will be sent to nearest TSDF site. Treated wastewater from ETP will be reused for industrial purpose and ETP Sludge will be sent to TSDF site. Total proposed (Existing + Proposed) domestic wastewater 1.6 KLD will be treated in STP and will be reused within premises for gardening purpose and shall maintain Zero Liquid Discharge
9. Total power requirement will be 500 KVA after expansion. Power supply shall be taken from Maharashtra State Electricity Distribution Company Limited (MSECL). D. G. set capacity of 125 KVA (1 No.) (Stand by) is provided to fulfill the power requirement and used in case of power cut or failure. DG set is provided with an effective safe stack height for proper dispersion of pollutants that keeps the emissions within the permissible limit
10. Existing unit has 500 kg/hr. LDO OR Furnace Oil based 1 Nos. Steam Boiler, 6 Lac/Cal/Kg per hr. LDO OR Furnace Oil based 1 Nos. Thermopack & 125 KVA Diesel based D.G. Set. Additionally, 10 Lac K Cal per hr

LDO OR Natural Gas based 1 Nos. Thermopack as well as natural gas will be proposed in existing Boiler (50 kg/hr.) and Thermopack (6 Lac/Cal/Kg per hr) instead of Furnace Oil. Adequate stack height will be installed for controlling the particulate emissions within the statutory limit of 120 mg/Nm<sup>3</sup> as per CPA notification.

| Sr. no | Source of emission with capacity             | Stack Height (meter) | Type of Fuel       | Pollutant                             | APCM                  |
|--------|--|----------------------|--------------------|---------------------------------------|-----------------------|
| 1      | Steam Boiler (500 kg/hr.) (Existing)         | 13                   | LDO OR Natural Gas | PM, SO <sub>2</sub> , NO <sub>x</sub> | Adequate Stack Height |
| 2      | Thermopack (6 Lac K Cal per hr.) (Existing)  | 13                   | LDO OR Natural Gas |                                       | Adequate Stack Height |
| 3      | Thermopack (10 Lac K Cal per hr.) (Proposed) | 22                   | LDO OR Natural Gas |                                       | Adequate Stack Height |
| 4      | D.G. set (125 KVA) (Existing)                | 3 m Above Roof       | Diesel             |                                       | Adequate Stack Height |

#### 11. Details of Process emissions generation and its management:

| Sr. no | Source of emission  | Type of Emission with permissible limit | Stack/vent Height (meter) | APCM |
|--------|---|---|---------------------------|------|
| 1      | No any Process gas emission from Existing and Proposed manufacturing. |   |                           |      |

#### 12. Details of Solid waste/ Hazardous waste generation and its management:

##### Municipal Solid Waste Generation and it's management

| Particulars  | No. | @kg/day/Person     | Quantity of waste (in kg/day) |
|--------------|-----|--------------------|-------------------------------|
| Workers      | 45  | 0.15 kg/day/person | 6.75                          |
| <b>Total</b> |     |                    | <b>6.75 kg/day</b>            |

##### Hazardous Waste Generation and it's management

| Sr. No | Type/Name of Hazardous waste | Specific Source of generation (Name of the Activity, Product etc.) | Category and Schedule as per HW Rules. | Quantity (MT/Year) |          |       | Management of HW  |
|--------|------------------------------|--|--|--------------------|----------|-------|---|
|        |                              |  |  | Existing           | Proposed | Total |   |
| 1.     | Used Oil                     | Maintenance  | 5.1/SCH-I                              | 0                  | 10       | 10    | Collection, Storage in a leak proof containers & disposed only to MPCB registered authorized re-processors. |
| 2.     | ETP Sludge                   | ETP  | 35.3/SCH-I                             | 0                  | 100      | 100   | Collection, Storage in a secured manner and Disposal at authorized TSDF site.                               |
| 3.     | MEE Salt                     | MEE  | 35.3/SCH-I                             | 0                  | 73       | 73    | Collection, Storage, Transportation & send to pre/co-processing units                                       |
| 4.     | Distillation Residue         | From Mfg. of 2,6-dimethyl-5-heptenal (Melonal)                     | 20.3/SCH.I                             | 0                  | 80       | 80    | Collection, Storage, Transportation & send to pre/co-processing units                                       |

|    |                                  |   |            |   |     |     |  |
|----|----------------------------------|---|------------|---|-----|-----|--|
|    |                                  | & Aldehyde C12<br>MNA   |            |   |     |     | (cement industries) OR<br>disposal at nearest<br>CHWIF site.   |
| 5. | Spent<br>Solvent                 | From Mfg. of<br>Antiox BCD,<br>Acetophenone,<br>Styrallyl Acetate,<br>Aldehyde C12<br>MNA & Phenyl<br>Ethyl Alcohol | 20.2/SCH.I | 0 | 495 | 495 | Collection, Storage,<br>Handling recovered &<br>recycled by Solvent<br>Distillation Plant within<br>premises OR Sell to End<br>Users having permission<br>under Rule-9, through<br>GPS mounted vehicles. |
| 6. |                                  | Solvent Stripper  | 20.2/SCH.I | 0 | 66  | 66  | Collection, Storage, &<br>Recover by stripper &<br>send to pre/co processing<br>unit OR send to CHWIF,<br>through GPS mounted<br>vehicles.   |
| 7. | Process<br>Residue and<br>wastes | From Mfg. of<br>Antiox BCD,<br>Aldehyde C16 &<br>Aldehyde C12<br>MNA  | 28.1/SCH.I | 0 | 446 | 446 | Collection, Storage in a<br>secured manner and<br>Disposal at authorized<br>TSDF site.   |
| 8. | Spent Catalyst                   | From Mfg. of<br>Antiox BCD &<br>Acetophenone  | 28.2/SCH.I | 0 | 97  | 97  | Collection, Storage,<br>Transportation & send to<br>pre/co-processing units<br>(cement industries) OR<br>disposal at nearest<br>CHWIF site.  |

13. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 200.00 Lakhs (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 73.0 Lakhs per annum. Industry proposes to allocate Rs. 10.0 Lakhs towards Corporate Environment Responsibility.
14. Total 1387 Sq. m., Approx. 40 % of total plot area will be developed as greenbelt area within and at adjacent boundary of premises as per MoEF&CC guidelines. Total 347 Nos will be planted within and at adjacent boundary of premises.
15. PP has obtained certified compliance report vide MPCB letter no MPC/SROT-1/1235/2023 dated 23<sup>rd</sup> October 2023. Consent granted by the Board vide Consent No RO-Thane/Consent/TR-1/2106000608 dated 14.06.2023 valid till 31.05.2031. MPCB has reported that PP has complied with consent conditions.
16. The PP reported that the Public hearing is exempted as per the Para 7.III. Stage (3) (i) (b) of the EI/ Notification, 2006 as the project site is located within MIDC Tarapur which is declared as notified industrial area vide notification number No. IDC-2180/ 102842 (2385) dated 2.7.1980
17. The PP proposed to set up an Environment Management Cell (EMC) by engaging Partner- GM- office assistant- warehouse incharge- work manager- accountant- supervisors- operators- unskilled workers for the functioning of EMC.
18. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.

19. The estimated project cost is Rs. 2.0 crores. Operational Phase Manpower: 45 Nos.
20. The proposal was earlier considered in the 70<sup>th</sup> EAC meeting held on 4<sup>th</sup> December , 2023, wherein the EAC deferred the proposal for want of requisite information. Reply to the same was submitted by the PP, which is as follows:

| S. No. | Queries Raised by EAC   | Reply by PP  |
|--------|---|--|
|        | Quantified and specific compliance and action plan for the additional safeguard measures prescribed in the Ministry's O.M. dated 31.10.2019 for critically and severely polluted areas to be submitted. | Quantified and specific compliance and action plan for the additional safeguard measures prescribed in the Ministry's O.M. dated 31.10.2019 for critically polluted areas is submitted.  |
|        | The Committee noted that surface water quality study shows higher BOD and TDS levels at all locations. PP has to carry out sample analysis once again and submit the report.                            | As per instruction given by committee during meeting, we have carried out resampling and reanalysis of two locations for surface water i.e., Banganga River and Navapur Lake and results of this reanalysis is also near to the results obtained during baseline monitoring. Photographs of resampling, copy of comparison of baseline monitoring results of surface water with reanalysis results along with conclusion and copy of reanalysis results of surface water is submitted. |

| Break up of capital and recurring cost for EMP.   | Revised breakup of capital and recurring cost for EMP considering Solvent Stripper, MEE + ATFD and STP   |  |   |                           |  |
|---|--|--|---|---------------------------|--|
|   | Sr. No.  | Unit   | Detail  | Capital Cost(Rs. In lakh) | Total Recurring Cost/Annum (Rs. In lakh) |
|   | 1  | Wastewater   | ETP (Primary, Secondary & Tertiary), MEE + ATFD, Solvent Stripper, STP  | 125.0                     | 95.0                                     |
|   | 2  | Air  | Stack, LDAR   | 10.0                      | 2.0                                      |
|   | 3  | Hazardous Management   | Membership Charges, Disposal & Transportation Charges   | 21.0                      | 17.0                                     |
|   | 4  | Fire & Safety  | Fire Hydrant, Fire Safety, Fire water storage tank & sprinkler System, PPES & Proximity Suit, PLC + Flame proof electrical fittings, Fire Extinguishers & Foam Type Trolley | 60.0                      | 6.0                                      |
|   | 5  | Green Belt Development   | 347 Nos. trees + 70 nos. Trees considering 80% of survival rate (Area of Green Belt 1387.0 Sq. m)   | 8.5                       | 1.7                                      |
|   | 6  | Occupational Health  | OHS Centre, Medical Check-up  | 6.0                       | 4.0                                      |
|   | 7  | Noise Control  | Acoustic enclosure & Silencer & Vibration pads & Noise PPEs   | 3.5                       | 1.0                                      |
|   | 8  | Environmental Monitoring Programme   | AWH Monitoring (Internal+ External Lab)   | 5.0                       | 2.0                                      |
|   | 9  | CER Funds  | 2% of the project cost  | 12.0                      | 2.5                                      |
|   | 10   | Renewable energy   | 51.5 KW Power Generation  | 31.0                      | 0.5                                      |
|   | 11   | Rain Water Harvesting  | Rain water harvesting structure along with storage tank of 10 KL  | 1.2                       | 0.2                                      |
| 12  | Wildlife (Schedule-I species) Conservation   | Plantation, Awareness Programme for conservation, Award to Informer, Feeding, Species Rescue Kit, cage etc | 1.0   | 0.5                       |  |
| <b>Total</b>  |  |  | <b>284.2~285.0</b>  | <b>132.4~133.0</b>        |  |
| Treated 7.7 KLD wastewater of this unit along with 7.3 KLD wastewater of other two sister concern | <p>Existing unit have not installed ETP as from existing manufacturing activities there is no any wastewater generation as process involved only blending and mixing activities in existing manufacturing product.</p> <p>Now, PP have proposed to obtain Environment Clearance to add synthetic organic chemicals manufacturing in our existing unit. Hence, wastewater will be generated which will be treated in our proposed ETP at premises along with wastewater of other two sister concern units of Nikita group of Companies and will be reused in premises only. Hence, PP will obtain CTE and CTO from the MPCB after obtaining EC from EAC, MoEF &amp; CC.</p> |  |   |                           |  |

| <p>units of Nikita group of Companies from in-house ETP will be reused for Industrial purpose within premises as per page 34 of EIA report. Please submit copy of CTO issued by MPCB where they have allowed to receive effluent from sister concern units to treat the effluent in the ETP of the instant proposal.</p> | <p><b>Note:</b> The trade effluent from other two units located @ 1.0 km distance within same MIDC i.e. M/s. Nikita Transphase Adducts Pvt. Ltd. Plot No-T-95, 95/1, 96 and M/s. Nikita Transphase Adducts Pvt. Ltd. Plot No: N-180, 181, 182 will be brought by GPS enabled tanker (Robust Transportation System) through manifest system and will be treated in ETP (CAP-15 KLD) (Solvent Stripper + MEE + ATFD + Primary, Secondary &amp; Tertiary) to achieve prescribed standards of treated effluent norms fixed by MPCB and then reuse/recycle to process &amp; utilities inside the plant premises of VE Caps LLP only.</p> <p>However, the Committee did not agree with the present proposal and advised to comply with CPA OM dated 31.10.2019.</p> <table border="1" data-bbox="352 638 1262 1704"> <thead> <tr> <th>S.N.</th> <th>Name of unit</th> <th>Size (m x m x m)</th> <th>No.</th> <th>Retention Time</th> <th>MOC/ Remark</th> </tr> </thead> <tbody> <tr> <td colspan="6"><b>ETP Capacity: 15.0 KLD</b></td> </tr> <tr> <td>1</td> <td>Collection cum Equalization Tank</td> <td>5.0 x 2.0 x (3.0 + 0.5)</td> <td>1</td> <td>48 Hr.</td> <td>RCC M25</td> </tr> <tr> <td>2</td> <td>Neutralization Tank</td> <td>1.0 x 1.0 x (1.2 + 0.3)</td> <td>1</td> <td>2 Hr.</td> <td>MSFRP</td> </tr> <tr> <td>3</td> <td>Dosing Tank</td> <td>500 Lit</td> <td>1</td> <td>--</td> <td>HDPE</td> </tr> <tr> <td>4</td> <td>Primary Settling Tank</td> <td>1.5 x 1.5 x (1.5 + 0.3)</td> <td>1</td> <td>4 Hr.</td> <td>MSFRP</td> </tr> <tr> <td>5</td> <td>Neutralization Tank before SolventStripper</td> <td>1.0 x 1.0 x (1.2 + 0.3)</td> <td>1</td> <td>2 Hr.</td> <td>MSFRP</td> </tr> <tr> <td>6</td> <td>Aeration Tank</td> <td>5.0 x 2.0 x (3.0 + 0.5)</td> <td>1</td> <td>48 Hr.</td> <td>MSFRP</td> </tr> <tr> <td>7</td> <td>Secondary Settling Tank</td> <td>1.5 x 1.5 x (1.5 + 0.3)</td> <td>1</td> <td>4 Hr.</td> <td>MSFRP</td> </tr> <tr> <td>8</td> <td>ACF + PSF</td> <td>1800 mm x 2.2 m</td> <td>1</td> <td>-</td> <td>--</td> </tr> <tr> <td>9</td> <td>Filter Press</td> <td>250 lit/hr., 10 plates</td> <td>1</td> <td>-</td> <td>PP+MS</td> </tr> <tr> <td>10</td> <td>Holding Tank</td> <td>2.5 x 1.5 x (1.5 + 0.5)</td> <td>1</td> <td>8 Hr.</td> <td>MSFRP</td> </tr> <tr> <td>11</td> <td>MEE</td> <td>15 KLD</td> <td>1</td> <td>-</td> <td>-</td> </tr> <tr> <td>12</td> <td>Agitated Thin Film Dryer (ATFD)</td> <td>3 KLD</td> <td>1</td> <td>-</td> <td>-</td> </tr> <tr> <td>13</td> <td>MEE condensate collection Tank</td> <td>2.5 x 1.5 x (1.5 + 0.5)</td> <td>1</td> <td>8 hr.</td> <td>MSFRP</td> </tr> <tr> <td>14</td> <td>Solvent stripper</td> <td>15 KLD</td> <td>1</td> <td>--</td> <td>--</td> </tr> <tr> <td>15</td> <td>STP</td> <td>2.0 KLD</td> <td>1</td> <td>--</td> <td>--</td> </tr> </tbody> </table> | S.N.                    | Name of unit | Size (m x m x m) | No.         | Retention Time | MOC/ Remark | <b>ETP Capacity: 15.0 KLD</b> |  |  |  |  |  | 1 | Collection cum Equalization Tank | 5.0 x 2.0 x (3.0 + 0.5) | 1 | 48 Hr. | RCC M25 | 2 | Neutralization Tank | 1.0 x 1.0 x (1.2 + 0.3) | 1 | 2 Hr. | MSFRP | 3 | Dosing Tank | 500 Lit | 1 | -- | HDPE | 4 | Primary Settling Tank | 1.5 x 1.5 x (1.5 + 0.3) | 1 | 4 Hr. | MSFRP | 5 | Neutralization Tank before SolventStripper | 1.0 x 1.0 x (1.2 + 0.3) | 1 | 2 Hr. | MSFRP | 6 | Aeration Tank | 5.0 x 2.0 x (3.0 + 0.5) | 1 | 48 Hr. | MSFRP | 7 | Secondary Settling Tank | 1.5 x 1.5 x (1.5 + 0.3) | 1 | 4 Hr. | MSFRP | 8 | ACF + PSF | 1800 mm x 2.2 m | 1 | - | -- | 9 | Filter Press | 250 lit/hr., 10 plates | 1 | - | PP+MS | 10 | Holding Tank | 2.5 x 1.5 x (1.5 + 0.5) | 1 | 8 Hr. | MSFRP | 11 | MEE | 15 KLD | 1 | - | - | 12 | Agitated Thin Film Dryer (ATFD) | 3 KLD | 1 | - | - | 13 | MEE condensate collection Tank | 2.5 x 1.5 x (1.5 + 0.5) | 1 | 8 hr. | MSFRP | 14 | Solvent stripper | 15 KLD | 1 | -- | -- | 15 | STP | 2.0 KLD | 1 | -- | -- |
|--|---|-------------------------|--------------|------------------|-------------|----------------|-------------|-------------------------------|--|--|--|--|--|---|----------------------------------|-------------------------|---|--------|---------|---|---------------------|-------------------------|---|-------|-------|---|-------------|---------|---|----|------|---|-----------------------|-------------------------|---|-------|-------|---|--|-------------------------|---|-------|-------|---|---------------|-------------------------|---|--------|-------|---|-------------------------|-------------------------|---|-------|-------|---|-----------|-----------------|---|---|----|---|--------------|------------------------|---|---|-------|----|--------------|-------------------------|---|-------|-------|----|-----|--------|---|---|---|----|---------------------------------|-------|---|---|---|----|--------------------------------|-------------------------|---|-------|-------|----|------------------|--------|---|----|----|----|-----|---------|---|----|----|
| S.N.   | Name of unit  | Size (m x m x m)        | No.          | Retention Time   | MOC/ Remark |                |             |                               |  |  |  |  |  |   |                                  |                         |   |        |         |   |                     |                         |   |       |       |   |             |         |   |    |      |   |                       |                         |   |       |       |   |  |                         |   |       |       |   |               |                         |   |        |       |   |                         |                         |   |       |       |   |           |                 |   |   |    |   |              |                        |   |   |       |    |              |                         |   |       |       |    |     |        |   |   |   |    |                                 |       |   |   |   |    |                                |                         |   |       |       |    |                  |        |   |    |    |    |     |         |   |    |    |
| <b>ETP Capacity: 15.0 KLD</b>  |   |                         |              |                  |             |                |             |                               |  |  |  |  |  |   |                                  |                         |   |        |         |   |                     |                         |   |       |       |   |             |         |   |    |      |   |                       |                         |   |       |       |   |  |                         |   |       |       |   |               |                         |   |        |       |   |                         |                         |   |       |       |   |           |                 |   |   |    |   |              |                        |   |   |       |    |              |                         |   |       |       |    |     |        |   |   |   |    |                                 |       |   |   |   |    |                                |                         |   |       |       |    |                  |        |   |    |    |    |     |         |   |    |    |
| 1  | Collection cum Equalization Tank  | 5.0 x 2.0 x (3.0 + 0.5) | 1            | 48 Hr.           | RCC M25     |                |             |                               |  |  |  |  |  |   |                                  |                         |   |        |         |   |                     |                         |   |       |       |   |             |         |   |    |      |   |                       |                         |   |       |       |   |  |                         |   |       |       |   |               |                         |   |        |       |   |                         |                         |   |       |       |   |           |                 |   |   |    |   |              |                        |   |   |       |    |              |                         |   |       |       |    |     |        |   |   |   |    |                                 |       |   |   |   |    |                                |                         |   |       |       |    |                  |        |   |    |    |    |     |         |   |    |    |
| 2  | Neutralization Tank   | 1.0 x 1.0 x (1.2 + 0.3) | 1            | 2 Hr.            | MSFRP       |                |             |                               |  |  |  |  |  |   |                                  |                         |   |        |         |   |                     |                         |   |       |       |   |             |         |   |    |      |   |                       |                         |   |       |       |   |  |                         |   |       |       |   |               |                         |   |        |       |   |                         |                         |   |       |       |   |           |                 |   |   |    |   |              |                        |   |   |       |    |              |                         |   |       |       |    |     |        |   |   |   |    |                                 |       |   |   |   |    |                                |                         |   |       |       |    |                  |        |   |    |    |    |     |         |   |    |    |
| 3  | Dosing Tank   | 500 Lit                 | 1            | --               | HDPE        |                |             |                               |  |  |  |  |  |   |                                  |                         |   |        |         |   |                     |                         |   |       |       |   |             |         |   |    |      |   |                       |                         |   |       |       |   |  |                         |   |       |       |   |               |                         |   |        |       |   |                         |                         |   |       |       |   |           |                 |   |   |    |   |              |                        |   |   |       |    |              |                         |   |       |       |    |     |        |   |   |   |    |                                 |       |   |   |   |    |                                |                         |   |       |       |    |                  |        |   |    |    |    |     |         |   |    |    |
| 4  | Primary Settling Tank   | 1.5 x 1.5 x (1.5 + 0.3) | 1            | 4 Hr.            | MSFRP       |                |             |                               |  |  |  |  |  |   |                                  |                         |   |        |         |   |                     |                         |   |       |       |   |             |         |   |    |      |   |                       |                         |   |       |       |   |  |                         |   |       |       |   |               |                         |   |        |       |   |                         |                         |   |       |       |   |           |                 |   |   |    |   |              |                        |   |   |       |    |              |                         |   |       |       |    |     |        |   |   |   |    |                                 |       |   |   |   |    |                                |                         |   |       |       |    |                  |        |   |    |    |    |     |         |   |    |    |
| 5  | Neutralization Tank before SolventStripper  | 1.0 x 1.0 x (1.2 + 0.3) | 1            | 2 Hr.            | MSFRP       |                |             |                               |  |  |  |  |  |   |                                  |                         |   |        |         |   |                     |                         |   |       |       |   |             |         |   |    |      |   |                       |                         |   |       |       |   |  |                         |   |       |       |   |               |                         |   |        |       |   |                         |                         |   |       |       |   |           |                 |   |   |    |   |              |                        |   |   |       |    |              |                         |   |       |       |    |     |        |   |   |   |    |                                 |       |   |   |   |    |                                |                         |   |       |       |    |                  |        |   |    |    |    |     |         |   |    |    |
| 6  | Aeration Tank   | 5.0 x 2.0 x (3.0 + 0.5) | 1            | 48 Hr.           | MSFRP       |                |             |                               |  |  |  |  |  |   |                                  |                         |   |        |         |   |                     |                         |   |       |       |   |             |         |   |    |      |   |                       |                         |   |       |       |   |  |                         |   |       |       |   |               |                         |   |        |       |   |                         |                         |   |       |       |   |           |                 |   |   |    |   |              |                        |   |   |       |    |              |                         |   |       |       |    |     |        |   |   |   |    |                                 |       |   |   |   |    |                                |                         |   |       |       |    |                  |        |   |    |    |    |     |         |   |    |    |
| 7  | Secondary Settling Tank   | 1.5 x 1.5 x (1.5 + 0.3) | 1            | 4 Hr.            | MSFRP       |                |             |                               |  |  |  |  |  |   |                                  |                         |   |        |         |   |                     |                         |   |       |       |   |             |         |   |    |      |   |                       |                         |   |       |       |   |  |                         |   |       |       |   |               |                         |   |        |       |   |                         |                         |   |       |       |   |           |                 |   |   |    |   |              |                        |   |   |       |    |              |                         |   |       |       |    |     |        |   |   |   |    |                                 |       |   |   |   |    |                                |                         |   |       |       |    |                  |        |   |    |    |    |     |         |   |    |    |
| 8  | ACF + PSF   | 1800 mm x 2.2 m         | 1            | -                | --          |                |             |                               |  |  |  |  |  |   |                                  |                         |   |        |         |   |                     |                         |   |       |       |   |             |         |   |    |      |   |                       |                         |   |       |       |   |  |                         |   |       |       |   |               |                         |   |        |       |   |                         |                         |   |       |       |   |           |                 |   |   |    |   |              |                        |   |   |       |    |              |                         |   |       |       |    |     |        |   |   |   |    |                                 |       |   |   |   |    |                                |                         |   |       |       |    |                  |        |   |    |    |    |     |         |   |    |    |
| 9  | Filter Press  | 250 lit/hr., 10 plates  | 1            | -                | PP+MS       |                |             |                               |  |  |  |  |  |   |                                  |                         |   |        |         |   |                     |                         |   |       |       |   |             |         |   |    |      |   |                       |                         |   |       |       |   |  |                         |   |       |       |   |               |                         |   |        |       |   |                         |                         |   |       |       |   |           |                 |   |   |    |   |              |                        |   |   |       |    |              |                         |   |       |       |    |     |        |   |   |   |    |                                 |       |   |   |   |    |                                |                         |   |       |       |    |                  |        |   |    |    |    |     |         |   |    |    |
| 10   | Holding Tank  | 2.5 x 1.5 x (1.5 + 0.5) | 1            | 8 Hr.            | MSFRP       |                |             |                               |  |  |  |  |  |   |                                  |                         |   |        |         |   |                     |                         |   |       |       |   |             |         |   |    |      |   |                       |                         |   |       |       |   |  |                         |   |       |       |   |               |                         |   |        |       |   |                         |                         |   |       |       |   |           |                 |   |   |    |   |              |                        |   |   |       |    |              |                         |   |       |       |    |     |        |   |   |   |    |                                 |       |   |   |   |    |                                |                         |   |       |       |    |                  |        |   |    |    |    |     |         |   |    |    |
| 11   | MEE   | 15 KLD                  | 1            | -                | -           |                |             |                               |  |  |  |  |  |   |                                  |                         |   |        |         |   |                     |                         |   |       |       |   |             |         |   |    |      |   |                       |                         |   |       |       |   |  |                         |   |       |       |   |               |                         |   |        |       |   |                         |                         |   |       |       |   |           |                 |   |   |    |   |              |                        |   |   |       |    |              |                         |   |       |       |    |     |        |   |   |   |    |                                 |       |   |   |   |    |                                |                         |   |       |       |    |                  |        |   |    |    |    |     |         |   |    |    |
| 12   | Agitated Thin Film Dryer (ATFD)   | 3 KLD                   | 1            | -                | -           |                |             |                               |  |  |  |  |  |   |                                  |                         |   |        |         |   |                     |                         |   |       |       |   |             |         |   |    |      |   |                       |                         |   |       |       |   |  |                         |   |       |       |   |               |                         |   |        |       |   |                         |                         |   |       |       |   |           |                 |   |   |    |   |              |                        |   |   |       |    |              |                         |   |       |       |    |     |        |   |   |   |    |                                 |       |   |   |   |    |                                |                         |   |       |       |    |                  |        |   |    |    |    |     |         |   |    |    |
| 13   | MEE condensate collection Tank  | 2.5 x 1.5 x (1.5 + 0.5) | 1            | 8 hr.            | MSFRP       |                |             |                               |  |  |  |  |  |   |                                  |                         |   |        |         |   |                     |                         |   |       |       |   |             |         |   |    |      |   |                       |                         |   |       |       |   |  |                         |   |       |       |   |               |                         |   |        |       |   |                         |                         |   |       |       |   |           |                 |   |   |    |   |              |                        |   |   |       |    |              |                         |   |       |       |    |     |        |   |   |   |    |                                 |       |   |   |   |    |                                |                         |   |       |       |    |                  |        |   |    |    |    |     |         |   |    |    |
| 14   | Solvent stripper  | 15 KLD                  | 1            | --               | --          |                |             |                               |  |  |  |  |  |   |                                  |                         |   |        |         |   |                     |                         |   |       |       |   |             |         |   |    |      |   |                       |                         |   |       |       |   |  |                         |   |       |       |   |               |                         |   |        |       |   |                         |                         |   |       |       |   |           |                 |   |   |    |   |              |                        |   |   |       |    |              |                         |   |       |       |    |     |        |   |   |   |    |                                 |       |   |   |   |    |                                |                         |   |       |       |    |                  |        |   |    |    |    |     |         |   |    |    |
| 15   | STP   | 2.0 KLD                 | 1            | --               | --          |                |             |                               |  |  |  |  |  |   |                                  |                         |   |        |         |   |                     |                         |   |       |       |   |             |         |   |    |      |   |                       |                         |   |       |       |   |  |                         |   |       |       |   |               |                         |   |        |       |   |                         |                         |   |       |       |   |           |                 |   |   |    |   |              |                        |   |   |       |    |              |                         |   |       |       |    |     |        |   |   |   |    |                                 |       |   |   |   |    |                                |                         |   |       |       |    |                  |        |   |    |    |    |     |         |   |    |    |
| <p>As per page 43 of EIA report, domestic wastewater will be sent</p>  | <p>PP has proposed modular STP of 2.0 KLD for the treatment of wastewater generated from domestic activities. Treated wastewater from STP will be reused for gardening/horticulture purpose within premises and STP sludge will be used as manure within premises</p>   |                         |              |                  |             |                |             |                               |  |  |  |  |  |   |                                  |                         |   |        |         |   |                     |                         |   |       |       |   |             |         |   |    |      |   |                       |                         |   |       |       |   |  |                         |   |       |       |   |               |                         |   |        |       |   |                         |                         |   |       |       |   |           |                 |   |   |    |   |              |                        |   |   |       |    |              |                         |   |       |       |    |     |        |   |   |   |    |                                 |       |   |   |   |    |                                |                         |   |       |       |    |                  |        |   |    |    |    |     |         |   |    |    |

|  |  |  |
|--|--|--|
|  | to Soak<br>Pit/Septic<br>tank. PP to<br>provide<br>modular<br>STP and use<br>treated<br>water for<br>horticulture<br>purpose |  |
|--|--|--|

|  |  |                     |                |      |      |                       |  |  |      |                           |
|--|--|---------------------|----------------|------|------|-----------------------|--|--|------|---------------------------|
| <p>Effluent shall be segregated into High TDS/COD and Low TDS/COD and treated in the ETP. Please provide complete treatment flow sheet alongwith recycle/reuse of treated effluent</p> |  |                     |                |      |      |                       |  |  |      |                           |
| <p>Recalculate carbon sequestration of the proposed project</p>  | <p>carbon sequestration considering inside plantation as well as additional proposed outside plantation at Navapur village</p> |                     |                |      |      |                       |  |  |      |                           |
|  | S.N  | GHG Emission Source | Type of source | Unit | QTY. | Total CO2e (Ton/year) |  | Mitigation measures for carbon sequestration with unit | QTY. | CO2e reduction (Ton/Year) |
| Direct source  | Indirect source  |                     |                |      |      |                       |  |  |      |                           |

|  |  |   |  |   |   |      |      |      |   |       |      |
|--|--|---|--|---|---|------|------|------|---|-------|------|
|  |  | 1 | Energy consumption                     | Indirect (Electricity Purchased)  | KW (500 KVA)  | 400  | 0    | 2482 | Solar energy by solar panels = 51.5 KWH (Inside premises) + 17 KWH (In Nr. Village) will be provided. | 68.5  | 106  |
|  |  | 2 | Municipal Solid Waste                  | Direct (Biodegradable waste generation)                                       | kg/day  | 6.75 | 0.99 | 0    | Segregation at source with closed lid bins provision (kg/day)   | 6.75  | 0.99 |
|  |  | 3 | Transportation of goods                | Indirect (Mobile source) Finish goods and RM transportation in 10 km distance | no. of trucks of Finished Goods per month in 10 km  | 30   | 0    | 2.7  | 20% Transportation of FG by CNG based vehicle   | 6.00  | 0.5  |
|  |  |   |  |   | no. trucks of Solid Raw material per month in 10 km | 60   | 0    | 5.31 | 20% Transportation of RM by CNG based vehicle   | 12.00 | 1.06 |
|  |  | 4 | Transportation of employees            | Indirect (Mobile source) (45 Employees, in vicinity of 10 km)                 | No. of vehicles                                     | 45   | 0    | 7    | 20% Electric vehicle will be proposed= 9 Nos.   | 9.0   | 1.4  |
|  |  | 5 | Energy consumption for D.G.set-125 KVA | Direct (stationary) (working hours: 4 & working days: 35)                     | lit/hr  | 20   | 7    | 0    | Emergency only  | 0     | 0    |
|  |  | 6 | Effluent Treatment Plant               | Direct  | KL/day  | 15   | 1.6  | 0    | Tree Plantation around  | 10    | 1.7  |

|   |   |                  |                     |                |      |        |        |  |         |      |
|---|---|------------------|---------------------|----------------|------|--------|--------|--|---------|------|
|   |   |                  |                     |                |      |        |        | ETP area<br>(10 NOS.<br>TREES)   |         |      |
|   | 7   | Fuel consumption | Direct (stationary) | LDO (Lit/D ay) | 1775 | 1719   | 0      | Low Nox Burner   | -       | 1203 |
|   | 8   |                  |                     |                |      |        |        | Green belt is proposed considering 2m x 2m canopy of tree-337 no. of trees within premises + 1500 plant outside at Navapur village | 1837    | 307  |
|   | Total carbon Footprint  |                  |                     |                |      | 1728.9 | 2496.9 | Total carbon sequestration   | 1621.65 |      |
|   | Total carbon Footprint (Direct + Indirect)  |                  |                     |                |      | 4225.6 |        |  |         |      |
| <p><b>In Nutshell, we will save / capture / reduce approx. 1621.65 tons per year or 38.38% of total carbon dioxide generated during year(considering direct as well as indirect Source of CO2 emission) through above mitigation measures suggested</b></p> |   |                  |                     |                |      |        |        |  |         |      |
| PP to submit reasons for not obtaining EC for the existing unit and supporting documents i.e CTE of the existing unit   | <p>initially the land was purchased by M/s. Century Alloy Steels Pvt. Ltd. on 11.02.1985. They had established the project and started operation from 1986 after obtaining CTO from the MPCB dated: 18.03.1986 for the production of Ferro Moly, Ferro Chrome, Aluminum Powder, Hydrated Lime which were <b>inorganic products</b>. Then they had <b>dropped these products</b> and started Fabrication of Tank &amp; Vessels Job work (<b>Only Engineering Activity</b>) as mentioned in CTO of 2007. Hence, these products were <b>not attracting EIA Notification</b>.</p> <p>Then after M/s. VE CAPS LLP had purchased the plot and started manufacturing of existing Non-EC product i.e., <b>Polyol (Only Mixing &amp; blending activity) from 2015</b>. This existing product i. e., Polyol is also only Mixing &amp; Blending activity which is also mentioned in product list of latest valid existing CTO. Hence, <b>EC is not applicable to existing product i.e., Polyol (Only Mixing &amp; blending activity)</b>. Thus, till date no any such products manufactured at the project site which attracts EC.</p> <p>Above mentioned details are also mentioned in TOR granted by EAC, MoEF dated: 11.07.2022.</p> <p>First CTO for the manufacturing of existing Non-EC product i.e., Polyol (Only Mixing &amp; blending activity) mentioned in proposed proposal was obtained vide consent no.: MPCB/ROT/TR-I/1919/13, Dated: 22.05.2015 by M/s. Century Alloy Steels Pvt. Ltd. Then the name was changed from M/s. Century Alloy Steels Pvt. Ltd. to M/s. VE Caps LLP in CTO vide consent no MPCB/16/08300/ROT/1919/41, Dated: 23.06.2016. Latest CTO obtained vide consent no.: RO-THANE/CONSENT/TRI/2106000608, Dated: 14.06.2021 for the production of Polyol (Only Mixing &amp; blending activity) which is valid upto: 31.05.2031 in the name of M/s. VE Caps LLP</p> |                  |                     |                |      |        |        |  |         |      |

Details of all available CTO Authorization till date in tabular format is given in below table:

| Sr. no. | Permission                                  | Date of issue | Name of Company                     | Name of product and production capacity as per permission  |
|---------|---|---------------|-------------------------------------|--|
| 1.      | CTO/CCA Fresh                               | 18.03.1986    | M/s. Century Alloy Steels Pvt. Ltd. | 1. Ferro Moly: 600 Kg/Day<br>2. Ferro Chrome: 1 MT/Day   |
| 2.      | CTO/CCA                                     | 19.08.1988    | M/s. Century Alloy Steels Pvt. Ltd. | 3. Aluminum Powder: 680 Kg/Day<br>4. Hydrated Lime: 30 MT/Day  |
| 3.      | CTO/CCA                                     | 21.11.1989    | M/s. Century Alloy Steels Pvt. Ltd. | 1. Ferro Moly: 600 Kg/Day<br>2. Ferro Chrome: 1000 Kg/Day<br>3. Aluminum Powder: 680 Kg/Day<br>4. Hydrated Lime: 30 MT/Day<br>5. Low Carbon Ferro Manganese: 1 MT/Day<br>6. Low Carbon Ferro Titanium: 800 Kg/Day<br>7. Low Carbon Ferro Vanadium: 100 Kg/Day<br>8. Alloy Steel Casting: 14 MT/Day<br>9. Alloy Steel Ingots: 14 MT/Day |
| 4.      | CTO/CCA                                     | 12.04.2007    | M/s. Century Alloy Steels Pvt. Ltd. | Fabrication of Tank & Vessels Job work (Only Engineering Activity): As per Order   |
| 5.      | CTO/CCA                                     | 14.05.2013    | M/s. Century Alloy Steels Pvt. Ltd. |  |
| 6.      | CTO/CCA                                     | 22.05.2015    | M/s. Century Alloy Steels Pvt. Ltd. | 1. Polyol: 210 MT/Month (Only Mixing & blending activity)  |
| 7.      | CTO/CCA                                     | 23.06.2016    | M/s. VE Caps LLP                    | 2. Glycol Solution (By Product): 40 MT/Month   |
| 8.      | CTO/CCA (Latest CCA valid upto: 31.05.2031) | 14.06.2021    | M/s. VE Caps LLP                    |  |

Status of approval of chief inspector of industries for storage of hazardous chemicals for the existing and

Existing product i.e., Polyol is only Mixing & Blending activity which is also mentioned in product list of latest valid existing CTO. For Existing manufacturing unit, we have obtained Factory License under Factories Act 1948

**For proposed expansion we will obtain PESO license for storage of hazardous chemicals after obtaining Environment Clearance (EC) from EAC. MoEF & CC.**

|  |  |   |
|--|--|---|
|  | proposed expansion.                                |   |
|  | Emergency response plan to handle chemical spills. | Emergency response plan to handle chemical spills has been submitted. The Committee suggested to prepare onsite and offsite disaster management plan and submitted to the District Authority for obtaining approval. Regular mockdrill and training shall be conducted. Annual safety audit shall be conducted. |

## 21. Deliberations by the EAC

During deliberations, EAC discussed the following issues:

- PP submitted the Quantified and specific compliance and action plan for the additional safeguard measures prescribed in the Ministry's O.M. dated 31.10.2019 for critically and severely polluted areas.
- PP informed that they have removed 7.3 KLD wastewater of other two sister concern units of Nikita group of Companies from our water balance diagram. Revised water balance diagram alongwith revised Wastewater segregation stream and characteristics
- PP submitted the commitment towards submission of Safety Report as per MSIHC rules, 1989 to chief inspector of industries for storage of hazardous chemicals for expansion.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC constituted under the provisions of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the PP in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.

The EAC noted that the PP has given an undertaking to the effect that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

The EAC noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The EAC deliberated the Onsite and Offsite Emergency plans and also the various mitigation measures proposed during the implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules,

1989, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, as amended from time to time.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for the grant of environmental clearance.

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

25. The EAC, after detailed deliberations, **recommended the project for the grant of environmental clearance, subject to the compliance of the terms and conditions as under, and general terms and conditions in Annexure-I:**
- (i) Stack of adequate height shall be provided to LDO /gas fired steam boiler, LDO /gas fired thermopack and DG set as per CPCB norms.
  - (ii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB. Odour management plan shall be implemented.
  - (iii) The total fresh water requirement from MIDC water supply shall not exceed 10.35 KLD.
  - (iv) NOC from the Concerned Local authority shall be obtained before start of the construction of plant and drawing of the MIDC water supply for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
  - (v) Effluent generation shall not exceed 9.3 KLD of which industrial effluent generation shall be 7.7 KLD and sewage shall be 1.6 KLD. Total industrial effluent generated from process shall be treated in solvent stripper. Then treated water from solvent stripper shall be treated in in-house MEE. MEE condensate shall be treated in in-house ETP (Primary + Secondary + Tertiary) alongwith wastewater from Boiler & Cooling. Mother Liquor from MEE shall be sent to in-house Agitated Thin Film Dryer (ATFD) and dry salt shall be sent to nearest TSDF site. Treated wastewater from ETP shall be reused for industrial purpose and ETP Sludge shall be sent to TSDF site. Total proposed (Existing + Proposed) domestic wastewater 1.6 KLD shall be treated in STP and shall be reused within premises for gardening purpose and Industry shall maintain **Zero Liquid Discharge**.
  - (vi) The PP shall develop/maintain 5-10 m thick greenbelt over an area of 40.0 % of plot area of 3467.50 sq. m. (i.e. 1387.0 sq. m. (1143 sq. m. existing + 244 sq. m. proposed)) area shall be developed within plant premises and adjacent Boundary to plant in North direction, preferably within one year of grant of EC. In addition to this, PP shall develop plantation at Navapur village at aerial distance 3.70 km from the project site in an area of 1.5 Acre. Permission for the same has been obtained from Navapur gram panchayat. The number of saplings shall be planted and should be of sufficient height, preferably 6-ft.

The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

- (vii) 10.0 KL X 1 Nos. underground RCC water storage tank shall be installed. Stored rain water shall be used in domestic, industrial activities etc after necessary pre-treatment.
- (viii) All the hazardous waste shall be managed and disposed as per the HWM Rules 2016. Unit shall explore possibility to dispose its hazardous wastes through co-processing, pre-processing to the extent possible prior its disposal to incineration/ landfill. Garbage shall be segregated into wet and dry waste. Wet waste shall be composted and used for the horticulture purpose and dry waste shall be sent to recyclers.
- (ix) Monitoring of the compliance of EC conditions shall be submitted with third party audit every year.
- (x) As proposed, an amount of ₹ 12 lakhs shall be allocated towards CER.
- (xi) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage Partner- GM- office assistant- warehouse incharge- work manager- accountant-supervisors- operators- unskilled workers. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1<sup>st</sup> July of every year for the activities carried out during previous year.
- (xii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is ₹ 2.85 Crores (Capital cost) and Rs. 1.33 Crores per annum. (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1<sup>st</sup> July of every year for the activities carried out during previous year.
- (xiii) No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.
- (xiv) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- (xv) The project proponent shall comply with the environment norms for synthetic organic chemical as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 608 (E), dated 21. 7.2010 under the provisions of the Environment (Protection) Rules, 1986.

- (xvi) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The occupier of new as well as expansion projects shall be required to comply with the provisions of the MSHIC Rules, 1989 including notifying their activities or seeking site approval from the concerned authorities, to address operational safety aspects. In doing so, various schedule, particularly Schedule-5 of the said rules may be referred.
- (xvii) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.
- (xviii) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.
- (xix) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xx) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.
- (xxi) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (xxii) The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (xxiii) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.
- (xxiv) As proposed, PP shall comply with the following mitigation measures as Per Ministry's Office Memorandum 31st October, 2019 regarding Projects located in Critically Polluted Area:

| SR. NO.                       | MITIGATION MEASURES AS PER OM | REMARKS | TIMELINE | FUND ALLOCATION (Rs. in LAKHS) |
|-------------------------------|-------------------------------|---------|----------|--------------------------------|
| <b><u>AIR ENVIRONMENT</u></b> |                               |         |          |                                |

| <p>i) Stack emission levels should be stringent than the existing standards in terms of the identified critical pollutants.</p> | <p>As per the notification, we will comply with the stringent air pollutants standards i.e., 80 % of proposed flue gas standards due to installation of proposed APCM like Adequate Stack Height for flue gas emission.</p> <p>Type of fuel details &amp; source of emissions are mentioned in below table:</p> <p><b>Proposed Flue Gas emission &amp; APCM details:</b></p> <table border="1" data-bbox="331 427 1182 1547"> <thead> <tr> <th>Sr. no</th> <th>Source of emission with capacity</th> <th>Stack Height (meter)</th> <th>Type of Fuel</th> <th>Type of Emissions i.e., Air Pollutants</th> <th>APC M</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Steam Boiler (500 kg/hr.) (Existing)</td> <td>13</td> <td>LDO OR Natural Gas</td> <td rowspan="4">PM&lt;120 mg/Nm<sup>3</sup><br/>SO<sub>2</sub>&lt;80 ppm<br/>NO<sub>x</sub>&lt;40 ppm</td> <td>Adequate Stack Height</td> </tr> <tr> <td>2</td> <td>Thermopack (6 Lac K Cal per hr.) (Existing)</td> <td>13</td> <td>LDO OR Natural Gas</td> <td>Adequate Stack Height</td> </tr> <tr> <td>3</td> <td>Thermopack (10 Lac K Cal per hr.) (Proposed)</td> <td>22</td> <td>LDO OR Natural Gas</td> <td>Adequate Stack Height</td> </tr> <tr> <td>4</td> <td>D.G. set (125 KVA) (Existing)</td> <td>3 m Above Roof</td> <td>Diesel</td> <td>Adequate Stack Height</td> </tr> </tbody> </table> <p><b>Proposed Process Gas emission &amp; APCM details:</b></p> <table border="1" data-bbox="344 1615 1166 1794"> <thead> <tr> <th>Sr. no</th> <th>Source of emission</th> <th>Type of Emission with permissible limit</th> <th>Stack/vent Height (meter)</th> <th>APCM</th> </tr> </thead> <tbody> <tr> <td>1</td> <td colspan="4">No any Process gas emission from Existing and Proposed manufacturing.</td> </tr> </tbody> </table> <p><i>*Note: There will be continuous monitoring of APCM proposed for flue gas.</i></p> | Sr. no  | Source of emission with capacity | Stack Height (meter)  | Type of Fuel          | Type of Emissions i.e., Air Pollutants | APC M | 1 | Steam Boiler (500 kg/hr.) (Existing) | 13 | LDO OR Natural Gas | PM<120 mg/Nm <sup>3</sup><br>SO <sub>2</sub> <80 ppm<br>NO <sub>x</sub> <40 ppm | Adequate Stack Height | 2 | Thermopack (6 Lac K Cal per hr.) (Existing) | 13 | LDO OR Natural Gas | Adequate Stack Height | 3 | Thermopack (10 Lac K Cal per hr.) (Proposed) | 22 | LDO OR Natural Gas | Adequate Stack Height | 4 | D.G. set (125 KVA) (Existing) | 3 m Above Roof | Diesel | Adequate Stack Height | Sr. no | Source of emission | Type of Emission with permissible limit | Stack/vent Height (meter) | APCM | 1 | No any Process gas emission from Existing and Proposed manufacturing. |  |  |  | <p>Installation of APCMs (Adequate Stack height) will be done before the commencement of the project.</p> <p>The stringent air pollutants standards i.e., 80 % of proposed flue gas emission standards norms will be achieved by APCMs (Adequate Stack height) and it will be continuously monitored and reported to regulatory authorities</p> | <p>10.0 Lacs for air Pollution Control &amp; Prevention</p> |
|---|--|---|----------------------------------|---|-----------------------|--|-------|---|--------------------------------------|----|--------------------|---|-----------------------|---|---|----|--------------------|-----------------------|---|--|----|--------------------|-----------------------|---|-------------------------------|----------------|--------|-----------------------|--------|--------------------|---|---------------------------|------|---|---|--|--|--|---|---|
| Sr. no  | Source of emission with capacity   | Stack Height (meter)                                | Type of Fuel                     | Type of Emissions i.e., Air Pollutants  | APC M                 |  |       |   |                                      |    |                    |   |                       |   |   |    |                    |                       |   |  |    |                    |                       |   |                               |                |        |                       |        |                    |   |                           |      |   |   |  |  |  |   |   |
| 1   | Steam Boiler (500 kg/hr.) (Existing)   | 13  | LDO OR Natural Gas               | PM<120 mg/Nm <sup>3</sup><br>SO <sub>2</sub> <80 ppm<br>NO <sub>x</sub> <40 ppm | Adequate Stack Height |  |       |   |                                      |    |                    |   |                       |   |   |    |                    |                       |   |  |    |                    |                       |   |                               |                |        |                       |        |                    |   |                           |      |   |   |  |  |  |   |   |
| 2   | Thermopack (6 Lac K Cal per hr.) (Existing)  | 13  | LDO OR Natural Gas               |   | Adequate Stack Height |  |       |   |                                      |    |                    |   |                       |   |   |    |                    |                       |   |  |    |                    |                       |   |                               |                |        |                       |        |                    |   |                           |      |   |   |  |  |  |   |   |
| 3   | Thermopack (10 Lac K Cal per hr.) (Proposed)   | 22  | LDO OR Natural Gas               |   | Adequate Stack Height |  |       |   |                                      |    |                    |   |                       |   |   |    |                    |                       |   |  |    |                    |                       |   |                               |                |        |                       |        |                    |   |                           |      |   |   |  |  |  |   |   |
| 4   | D.G. set (125 KVA) (Existing)  | 3 m Above Roof                                      | Diesel                           |   | Adequate Stack Height |  |       |   |                                      |    |                    |   |                       |   |   |    |                    |                       |   |  |    |                    |                       |   |                               |                |        |                       |        |                    |   |                           |      |   |   |  |  |  |   |   |
| Sr. no  | Source of emission   | Type of Emission with permissible limit             | Stack/vent Height (meter)        | APCM  |                       |  |       |   |                                      |    |                    |   |                       |   |   |    |                    |                       |   |  |    |                    |                       |   |                               |                |        |                       |        |                    |   |                           |      |   |   |  |  |  |   |   |
| 1   | No any Process gas emission from Existing and Proposed manufacturing.  |   |                                  |   |                       |  |       |   |                                      |    |                    |   |                       |   |   |    |                    |                       |   |  |    |                    |                       |   |                               |                |        |                       |        |                    |   |                           |      |   |   |  |  |  |   |   |
| <p>ii) CEMS may be installed in all large/medium sized category</p>   | <p>The proposed unit is falls under small scale category. However, PP has proposed installation and Commencement of <b>Continuous Emission Monitoring System- CEMS (as per CPCB guidelines for relevant parameters).</b></p>   | <p>Installation of CEMS will be done before the</p> |                                  |   |                       |  |       |   |                                      |    |                    |   |                       |   |   |    |                    |                       |   |  |    |                    |                       |   |                               |                |        |                       |        |                    |   |                           |      |   |   |  |  |  |   |   |

|       |   |  |   |    |
|-------|---|--|---|----|
|       | industries (air polluting) and connected to SPCB and CPCB server.   |  | commencement of the expansion project.  |    |
| iii ) | Effective fugitive emission control measures should be imposed in the process, transportation, packing etc. | <p>Source of fugitive emissions are loading and unloading section, material handling and transfer points, roads and transportation of vehicles.</p> <p>Proposed measures to control fugitive emission:</p> <ul style="list-style-type: none"> <li>• All reactors, treatment vessels, agitator and process pumps shall be mechanically sealed as per requirement.</li> <li>• All process pumps shall be provided trays to collect probable leakage.</li> <li>• More weight age on selection of MOC of piping shall be given to avoid leakage/spillage.</li> </ul>   | Paved Road, dedusting system, Greenbelt development, APCM (Adequate Stack height) installation etc. will be done before the commencement of the proposed expansion project. |    |
| iv )  | Transportation of materials by rail/conveyor belt, wherever feasible.                                       | <ul style="list-style-type: none"> <li>• Overflow system with return line to day tank/storage tank from batch tank will be provided to prevent hazardous material overflow.</li> <li>• De-dusting system will be provided at solid product bagging area.</li> <li>• Proper system shall be provided for decontamination and effective cleaning of drums.</li> <li>• All transfer points shall be fully enclosed.</li> <li>• Airborne dust shall be controlled.</li> <li>• All roads shall be paved on which movement of raw materials or products will take place.</li> <li>• Maintenance of air pollution control equipment shall be done regularly.</li> <li>• All the workers shall be provided with dust mask.</li> <li>• Green belt will be developed around the plant to arrest the fugitive emissions.</li> <li>• Whole process is/will be carried out in close loop.</li> <li>• Pipe line is/will be having minimum flange.</li> <li>• Proper ventilation is/will be provided.</li> <li>• No use of any Solid fuel. Is/will use only LDO OR Natural gas as fuel.</li> <li>• Raw materials are/will be stored in the covered area only.</li> <li>• Good housekeeping, proper maintenance and continuous observation is/will carry out to prevent the chances of any fugitive emission from process area.</li> <li>• Water sprinkling for dust suppression which reduce up to 30-40% pollution.</li> </ul> |   |    |
| v )   | Encourage use of cleaner fuels (pet coke/ furnace oil/ LSHS may be avoided).                                | They ensure that they will not use Pet-coke, furnace oil, LSHS as a fuel. They will only use <b>Natural Gas (clean fuel) OR LDO</b> in our premises.   | --  | -- |

|        |  |  |  |   |
|--------|--|--|--|---|
| vi )   | Best Available Technology may be used. For example; usage of EAF/SAF/IF in place of Cupola furnace. Usage of Supercritical technology in place of sub-critical technology. | <p>➤ <b>Domestic Wastewater:</b> Domestic waste water will be treated in STP and then treated water will be reused in gardening. By this process, we can reduce fresh domestic water.</p> <p>➤ <b>Industrial Wastewater:</b> Total waste water generated from process will be treated in solvent stripper. Then treated water from solvent stripper will be treated in in-house MEE. MEE condensate will be treated in in-house ETP (Primary + Secondary + Tertiary) along with waste water from Boiler &amp; Cooling. Mother Liquor from MEE will be sent to in-house <b>Agitated Thin Film Dryer (ATFD)</b> and dry salt will be sent to nearest TSDF site. Treated wastewater from ETP will be reused for industrial purpose and ETP Sludge will be sent to TSDF site.</p> <p><b>Hence, by this technology we can reduce the freshwater requirement.</b></p> <p>➤ <b>Air pollution control measures (APCM):</b> We have proposed adequate stack height to control emissions of SO<sub>2</sub>, NO<sub>x</sub> &amp; PM within the permissible limit.</p> <p>➤ <b>Fuel for utility:</b> LDO/Natural gas will be used for Boiler &amp; TFH instead of solid fuel (coal, pet-coke etc.). It is a clean fuel and has high calorific value. We get desired temperature for process instantly. It requires less foot print. We can also reduce the handling cost, space and manpower for feeding the coal to utility.</p> <p>➤ <b>Hazardous / Solid Waste:</b> Unit shall Explore the possibilities for environment friendly methods like co-processing &amp; reusing of hazardous waste for disposal of incinerable &amp; land fillable wastes before sending to CHWIF &amp; TSDF site respectively.</p> | The installation of ETP Units (Primary, Secondary, Tertiary treatment units), MEE, <b>Agitated Thin Film Dryer (ATFD)</b> , Solvent Stripper, STP & APCMs (Adequate Stack height) will be done before the commencement of the expansion project. | <ul style="list-style-type: none"> <li>• 125.0 Lacs for Water Pollution Control &amp; prevention Measures</li> <li>• 10.0 Lacs for air Pollution Control &amp; Prevention.</li> <li>• 8.5 Lacs for Green belt Development Plant.</li> </ul> |
| vi i)  | Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever feasible.   | Out of total project area (3467.50 sq. m.) <b>40.0 % area i.e., 1387.0 sq. m. (1143 sq. m. existing + 244 sq. m. proposed) area will be developed within plant premises and Adjacent Boundary to plant.</b> About total <b>347 trees (286 Nos. Existing + 61 Nos. Proposed)</b> will be planted in the green belt area.<br><b>Greenbelt development plan is submitted.</b>   | Within a year of commencement of the expansion project.  | <ul style="list-style-type: none"> <li>• 8.5 Lacs for Green belt Development Plant.</li> </ul>  |
| viii ) | Stipulation of greenbelt outside the project premises such as avenue plantation, plantation  |  |  |   |

|     |  |  |   |    |
|-----|--|--|---|----|
|     | in vacant areas, social forestry, etc.   |  |   |    |
| ix) | Assessment of carrying capacity of transportation load on roads inside the industrial premises. If the roads required to be widened, shall be prescribed as a condition. | PP will develop RCC road (in periphery of the plot area of 4.0 mtr. With adequate turning radius) in our premises even though they frequently sprinkle the water on road to avoid the dusting due to vehicular movement. | RCC Roads will be developed before commencement of the expansion project. | -- |

**WATER ENVIRONMENT**

|    |   |  |  |  |
|----|---|--|--|--|
| i) | Reuse/recycle of treated wastewater, wherever feasible. | <p>• <b>During Non-Monsoon Period:</b><br/>Total water Requirement of the proposed project will be <b>19.0 KLD</b>. Reuse/recycle qty. will be <b>8.65 KLD</b>. Hence, Fresh water requirement will be reduced from <b>19.0 KLD</b> to <b>10.35 KLD</b>. Water balance diagram (Basis: KLD) is submitted.</p> <p>• <b>During Monsoon Period:</b><br/>Total water Requirement of the proposed project will be <b>17.0 KLD</b>. Reuse/recycle qty. will be <b>8.65 KLD</b>. Additionally, <b>1.0 KLD</b> rain water will be used. Hence, Fresh water requirement from MIDC will be reduced from <b>17.0 KLD</b> to <b>7.35 KLD</b>. Water balance diagram (Basis: KLD) is submitted.</p> | The installation of ETP Units (Primary, Secondary, Tertiary treatment units), MEE, <b>Agitated Thin Film Dryer (ATFD)</b> , Solvent Stripper, STP will be done before the commencement of the expansion production. The installation of rainwater harvesting tank will be done | 125.0 Lacs for Water Pollution Control & prevention Measures.<br><br>1.2 Lacs for Rainwater Harvesting structure installation. |
|----|---|--|--|--|



| Sr. No.        | Parameter | Unit    | Stream from other utilities and process waste water Characteristics |         | Combine Effluent @1 |
|----------------|-----------|---------|---|---------|---------------------|
|                |           |         | Boiler  | Cooling |                     |
| Quantity (KLD) |           |         | 0.5   | 1.3     | 1.8                 |
| 1              | pH        | pH Unit | 6-8   | 6-8     | 6.5-7.5             |
| 2              | TSS       | mg/L    | 56  | 87      | 85                  |
| 3              | TDS       | mg/L    | 600   | 1100    | 1064                |
| 4              | BOD       | mg/L    | 10  | 15      | 15                  |
| 5              | COD       | mg/L    | 30  | 48      | 47                  |

| Sr. No.        | Parameter | Unit    | Combine Effluent @1 | MEE Condensate (To ETP) | Combine Effluent @2 | After Primary Treatment | After Secondary Treatment (Will be sent to Tertiary treatment) |
|----------------|-----------|---------|---------------------|-------------------------|---------------------|-------------------------|--|
| Quantity (KLD) |           |         | 2                   | 4.52                    | 6.32                | 6.09                    | 6.05   |
| 1              | pH        | pH Unit | 6.5-7.5             | 6.5-7.5                 | 6.5-7.5             | 6.5-7.5                 | 6.5-7.5  |
| 2              | TSS       | mg/L    | 85                  | 81                      | 82                  | 20                      | <20  |
| 3              | TDS       | mg/L    | 1064                | 716                     | 815                 | 828                     | <850   |
| 4              | BOD       | mg/L    | 15                  | 955                     | 687                 | 618                     | <150   |
| 5              | COD       | mg/L    | 47                  | 3019                    | 2173                | 1521                    | <350   |

|    |   |   |  |
|----|---|---|--|
| v) | In case, domestic waste water generation is more than 10 KLD, the industry may install STP. | Domestic wastewater generation from our premises is/will be only 1.6 KLD after proposed expansion which is less than 10 KLD. However, they will install STP System of 2.0 KLD and treated water will be reused within plant premises for gardening purpose. | Installation of STP will be done before the commencement of the expansion project. |
|----|---|---|--|

| LAND ENVIRONMENT |  |   |   |
|------------------|--|---|---|
| i)               | Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever, feasible for new projects. | out of total project area (3467.50 sq. m.) 40.0 % area i.e., 1387.0 sq. m. (1143 sq. m. existing + 244 sq. m. proposed) area will be developed within plant premises and Adjacent Boundary to plant. About total 347 trees (286 Nos. Existing + 61 Nos. Proposed) will be planted in the green belt area. | Within a year of commencement of the expansion project. |

|  |  |  |  |
|--|--|--|--|
|  |  |  | 8.5 Lacs for Green belt Development Plant. |
|--|--|--|--|

| ii)    | Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc. | Unit has started additional plantation at Navapur village at aerial distance 3.70 km from the project site in an area of 1.5 Acre. Permission for the same obtained from Navapur gram panchayat.   | Already started. | --                           |   |  |  |                  |          |          |       |    |          |   |    |    |   |    |            |   |     |     |   |    |          |   |    |    |                                       |   |
|--------|--|--|------------------|------------------------------|---|--|--|------------------|----------|----------|-------|----|----------|---|----|----|---|----|------------|---|-----|-----|---|----|----------|---|----|----|---------------------------------------|---|
| iii)   | Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by SPCBs/PCCs.              | They have proposed LDO/Natural gas (Clean Fuel) for proposed Boiler & Thermic Fluid heater. <b>Hence, there will be no generation of High volume – Low effect wastes i.e., fly-ash, slag, red-mud, de-inking sludge etc.</b>   | --               | --                           |   |  |  |                  |          |          |       |    |          |   |    |    |   |    |            |   |     |     |   |    |          |   |    |    |                                       |   |
| iv)    | More stringent norms for management of hazardous waste. The waste generated should be preferably utilized in Co-processing.        | <p>They will strictly follow Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 for dispose of hazardous wastes. We will explore possibility to dispose its hazardous wastes through co-processing, pre-processing to the extent possible prior its disposal to incineration/ landfill.</p> <ul style="list-style-type: none"> <li>➤ Hazardous waste like used oil will be collected in a leak proof containers &amp; disposed only to MPCB registered authorized re-processors provided the oil meets the standards as per schedule-5 part A of the rules.</li> <li>➤ Hazardous waste like ETP Sludge &amp; MEE Salt will be sent to TSDF.</li> <li>➤ Hazardous waste like Distillation Residue, Spent Solvents &amp; Spent Salts Shall be store in a secured manner &amp; handed over to MPCB authorized incinerators (CHWIF) /co-processing in cement kiln. Shall be collected in a leak proof containers &amp; disposed as per rule 9.</li> <li>➤ Hazardous waste like Spent Catalyst will be sent to pre/co-processing units (cement industries) OR disposal at nearest CHWIF site.</li> </ul> <table border="1" data-bbox="331 1711 1184 2042"> <thead> <tr> <th rowspan="2">Sr. No</th> <th rowspan="2">Type/Name of Hazardous waste</th> <th colspan="3">Quantity (MT/Year)</th> <th rowspan="2">Management of HW</th> </tr> <tr> <th>Existing</th> <th>Proposed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Used Oil</td> <td>0</td> <td>10</td> <td>10</td> <td>Collection, Storage in a leak proof containers &amp; disposed only to MPCB registered authorized re-processors.</td> </tr> <tr> <td>2.</td> <td>ETP Sludge</td> <td>0</td> <td>100</td> <td>100</td> <td rowspan="2">Collection, Storage in a secured manner and</td> </tr> <tr> <td>3.</td> <td>MEE Salt</td> <td>0</td> <td>73</td> <td>73</td> </tr> </tbody> </table> | Sr. No           | Type/Name of Hazardous waste | Quantity (MT/Year)  |  |  | Management of HW | Existing | Proposed | Total | 1. | Used Oil | 0 | 10 | 10 | Collection, Storage in a leak proof containers & disposed only to MPCB registered authorized re-processors. | 2. | ETP Sludge | 0 | 100 | 100 | Collection, Storage in a secured manner and | 3. | MEE Salt | 0 | 73 | 73 | Since commencement of the production. | 21.0 for Hazardous Waste Management & Disposal. |
| Sr. No | Type/Name of Hazardous waste   | Quantity (MT/Year)   |                  |                              | Management of HW  |  |  |                  |          |          |       |    |          |   |    |    |   |    |            |   |     |     |   |    |          |   |    |    |                                       |   |
|        |  | Existing   | Proposed         | Total                        |   |  |  |                  |          |          |       |    |          |   |    |    |   |    |            |   |     |     |   |    |          |   |    |    |                                       |   |
| 1.     | Used Oil   | 0  | 10               | 10                           | Collection, Storage in a leak proof containers & disposed only to MPCB registered authorized re-processors. |  |  |                  |          |          |       |    |          |   |    |    |   |    |            |   |     |     |   |    |          |   |    |    |                                       |   |
| 2.     | ETP Sludge   | 0  | 100              | 100                          | Collection, Storage in a secured manner and   |  |  |                  |          |          |       |    |          |   |    |    |   |    |            |   |     |     |   |    |          |   |    |    |                                       |   |
| 3.     | MEE Salt   | 0  | 73               | 73                           |   |  |  |                  |          |          |       |    |          |   |    |    |   |    |            |   |     |     |   |    |          |   |    |    |                                       |   |

|  |    |                            |   |     |                                   |   |    |
|--|----|----------------------------|---|-----|-----------------------------------|---|----|
|  |    |                            |   |     | Disposal at authorized TSDF site. |   |    |
|  | 4. | Distillation Residue       | 0 | 80  | 80                                | Collection, Storage, Transportation & send to pre/co-processing units (cement industries) OR disposal at nearest CHWIF site.  |    |
|  | 5. | Spent Solvent              | 0 | 495 | 495                               | Collection, Storage, Handling recovered & recycled by Solvent Distillation Plant within premises OR Sell to End Users having permission under Rule-9, through GPS mounted vehicles. |    |
|  | 6. |                            |   |     |                                   | 0   | 66 |
|  | 7. | Process Residue and wastes | 0 | 446 | 446                               | Collection, Storage in a secured manner and Disposal at authorized TSDF site.   |    |
|  | 8. | Spent Catalyst             | 0 | 97  | 97                                | Collection, Storage, Transportation & send to pre/co-processing units (cement industries) OR disposal at nearest CHWIF site.  |    |

**OTHER CONDITION (ADDITIONAL)**

| i)   | Monitoring of compliance of EC conditions may be submitted with third party audit every year.  | <b>Noted and will be complied.</b><br>After obtaining EC for proposed expansion project, we will submit report of compliance of the conditions of EC every year to the Board prepared by third party.  | At Interval of 6 months after getting EC From EAC. | --                             |            |     |                       |                       |       |  |  |  |  |  |  |
|--|--|--|--|--------------------------------|------------|-----|-----------------------|-----------------------|-------|--|--|--|--|--|--|
| ii)  | The % of the CER may be at least 1.5 times the slabs given in the OM dated 01.05.2018 for SPA and 2 times for CPA in case of Environme | They will allocate fund for CER two times that is 2% of the total project cost as per given in the OM dated 01.05.2018 in our proposed project.<br><br>Estimated Budget For CER:<br>Project cost: <b>5.85 Crores.</b>  | Within 2 years of commencement of the project.     | 12.0 Lakhs for CER Activities. |            |     |                       |                       |       |  |  |  |  |  |  |
|  |  | <table border="1"> <thead> <tr> <th>Component</th> <th>As per Norms</th> <th>Allocation</th> </tr> </thead> <tbody> <tr> <td>CER</td> <td>Rs. 12.0 laes (2.0 %)</td> <td>Rs. 12.0 laes (2.0 %)</td> </tr> </tbody> </table>  | Component  | As per Norms                   | Allocation | CER | Rs. 12.0 laes (2.0 %) | Rs. 12.0 laes (2.0 %) |       |  |  |  |  |  |  |
| Component                                    | As per Norms   | Allocation   |  |                                |            |     |                       |                       |       |  |  |  |  |  |  |
| CER  | Rs. 12.0 laes (2.0 %)  | Rs. 12.0 laes (2.0 %)  |  |                                |            |     |                       |                       |       |  |  |  |  |  |  |
|  |  | <table border="1"> <thead> <tr> <th rowspan="2">Activities<br/>(On basis of Needs Assessment)</th> <th colspan="3">Phase Wise Budget<br/>(Lakh)</th> </tr> <tr> <th>1st Year</th> <th>2nd Year</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> | Activities<br>(On basis of Needs Assessment)       | Phase Wise Budget<br>(Lakh)    |            |     | 1st Year              | 2nd Year              | TOTAL |  |  |  |  |  |  |
| Activities<br>(On basis of Needs Assessment) | Phase Wise Budget<br>(Lakh)  |  |  |                                |            |     |                       |                       |       |  |  |  |  |  |  |
|  | 1st Year   | 2nd Year   | TOTAL  |                                |            |     |                       |                       |       |  |  |  |  |  |  |
|  |  |  |  |                                |            |     |                       |                       |       |  |  |  |  |  |  |

|                    |  |                              |     |     |  |  |
|--------------------|--|------------------------------|-----|-----|--|--|
| ntal<br>Clearance. | <ul style="list-style-type: none"> <li>• <b>Avenue Plantation</b><br/>Plantation around location area as Navapur village- cost of 1 plant- 2000/- with maintenance for 2 year (200 plants).</li> </ul>     | 2.0                          | 2.0 | 4.0 |  |  |
|                    | <ul style="list-style-type: none"> <li>• <b>Solar Energy Utilization</b><br/>Installation of 17.0 kw rooftop solar system at Primary Government School, Grampanchayat, Aanganwadi @ Pam Village</li> </ul> | 4.0                          | 4.0 | 8.0 |  |  |
|                    | <b>Total Cost</b>  | <b>Approx. INR 12.0 Lakh</b> |     |     |  |  |

### Agenda No.71.5

**Proposed addition of a specialty Polymers manufacturing unit with production capacity of 4000 Mt/ month located at Plot No. E-67, MIDC, Tarapur, Boiser, Taluka & District Palghar Maharashtra by Nikisu Fine Chemicals Pvt. Ltd. (NFCPL) - Reconsideration of Environmental Clearance**

**[Proposal No: IA/MH/IND3/449779/2023; File No. IA-J-11011/309/2023-IA-II(I)]**

- The proposal is for the Environmental Clearance to Proposed addition of a specialty Polymers manufacturing unit with production capacity of 4000 Mt/ month located at Plot No. E-67, MIDC, Tarapur, Boiser, Taluka & District Palghar Maharashtra by Nikisu Fine Chemicals Pvt. Ltd. (NFCPL).
- The project/activity is covered under Category 'B' of item 5 (f)-Synthetic organic chemicals of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). However, due to the applicability of general conditions i.e. project site is located within CPA, it requires appraisal at Central Level by the Expert Appraisal Committee (EAC).
- The ToR was issued by the Ministry, vide letter no. IA-J-11011/309/2023-IA-II(I) dated 05.10.2023. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is an Expansion case. The proposal was placed in 70th EAC meeting on 4th December, 2023, wherein the EAC deferred the proposal now the proposal is placed in the 71st EAC meeting held on 29th December, 2023 wherein, PP along with accredited Consultant, SAGE (Sustainable Approach for Green Environment) LLP. (NABET Accreditation No.: NABET/EIA/2225/IA 0105 Valid Up to 22.9.2025] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:
- The PP reported that the Existing land area is 2,040 m<sup>2</sup> and no additional land will be used for proposed expansion project, no R& R is involved in the Project. The details of products to be manufactured are as follows:

| S. No. | Product Details             | CAS No.   | Existing Quantity | Proposed Quantity | Total Quantity | Uses                      |
|--------|-----------------------------|-----------|-------------------|-------------------|----------------|---------------------------|
|        | Melamine Formaldehyde Resin | 9003-08-1 | 0                 | 200               | 200            | Surface coating & Lining. |

|   |            |   |      |      |  |
|---|------------|---|------|------|--|
| Acrylic Polymers  | 9065-11-6  | 0 | 200  | 200  | Concrete conditioning in construction industry.          |
| Sulphonated Melamine Formaldehyde Resin (liquid & Powder) | 9003-08-1  | 0 | 200  | 200  | Concrete conditioning in construction industry.          |
| Poly Carboxylate Ether                                    | 70789-60-6 | 0 | 3000 | 3000 | Superplasticizers in concrete production.                |
| Polyamide Amine Epichlorohydrin                           | 106-89-8   | 0 | 200  | 200  | Used as wet strength agents in the papermaking industry. |
| Acrylic Polymer (Dispersing Agents)                       | 9065-11-6  | 0 | 200  | 200  | Preventing the deposition of solids on various fabrics   |

5. The PP reported that there is no violation case as per the Notification No. S.O. 804(E) dated 14.03.2017 and no direction is issued under the E(P) Act/Air Act/Water Act.
6. The Consent to Operate granted by MPCB vide No.: MPCB/ROT/TR-I/17021/15 dtd: 21/03/2016 valid upto 31/10/2021.
7. The PP reported that the Consent compliance report issued by RO was obtained on 06.11.2023 vide reference MPCB/ROT/P/2012300014/408. PP reported that RO verified all the norms and conditions mentioned in the consent.
8. The PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wild Life Corridors etc. within 10 km distance from the project site. River Banganga 3.19 km is flowing at a distance of north in direction. There is no forest land involved in the proposed project. No Schedule-I species were observed in the 10 km radius from the proposed. River Banganga 3.19 km is flowing at a distance of north in direction
9. The PP reported that the Ambient air quality monitoring was carried out at 8 locations during March 2022 to May 2022 and the baseline data indicates the ranges of concentrations as: PM10 (43.2-68.40 µg/ m<sup>3</sup>), PM2.5 (20.4- 31.4.µg/m<sup>3</sup>), SO<sub>2</sub> (6.8 -11.6µg/m<sup>3</sup>) and NO<sub>2</sub> (14 -26.5.µg/m<sup>3</sup>). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs aft 3.91 per the proposed project would be 0.578 µg/m<sup>3</sup>, 0.384 µg/ m<sup>3</sup>, 27.4 µg/m<sup>3</sup> and 3.91 µg/ m<sup>3</sup> with respect to PM10, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).
10. /The PP reported that the Total water requirement is 59 m<sup>3</sup>/day of which fresh water requirement of 54 m<sup>3</sup>/day will be met from MIDC. Effluent of 2.40 m<sup>3</sup>/day quantity will be treated through primary treatment & recycle reused. The plant will be based on Zero Liquid discharge system.
11. Power requirement after expansion will be 60 kVA including existing KVA and will be met from Maharashtra State Electricity Distribution Company Limited. (MSEDCL) Existing unit has DG sets of 30 kVA capacity, additionally DG sets are used as standby during power failure. Stack (height) will be provided as per CPCB norms to the proposed DG sets.

12. Existing unit has fired boiler. Additionally 500 kg/hr boiler will be installed. Stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm<sup>3</sup> for the proposed boilers.

13. **Details of Process Emissions Generation and its Management:** Suitable control measures have been taken to control the fugitive emission (primary and secondary) during loading / unloading, storage and handling of chemicals. Some fugitive emissions control measures are described below: Any spillage from drums etc. will be absorbed with saw dust / soda ash and mopped clean. The contaminated absorbent will be safely disposed of along with hazardous waste. Manual Handling of chemicals will be avoided.

**14. Details of Solid Waste/ Hazardous Waste Generation and its Management:**

| Sr.             | Type of waste           | Category No. | Unit      | Quantity | From          | Disposal             |
|-----------------|-------------------------|--------------|-----------|----------|---------------|----------------------|
| Hazardous Waste |                         |              |           |          |               |                      |
| 1.              | Discarded Drum /Barrels | 33.3         | No/ Month | 5        | Process       | To MWML              |
| 2.              | Torn Bags / Liners      | 33.3         | Kg/ Month | 5        | Process       | To MWML              |
| Other Waste     |                         |              |           |          |               |                      |
| 1.              | Municipal Solid Waste   | -            | Kg/day    | 0.2      | Domestic Uses | Municipal collection |

15. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 37 Lakhs (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 13.5 Lakhs/annum. Industry proposes to allocate Rs. 12.40 Lakhs towards Corporate Social Responsibility.

16. Industry has already developed greenbelt in an area of 12.06% i.e., 246 m<sup>2</sup> & we will develop 20% i.e., 408 m<sup>2</sup> out of total area of the project.

17. The PP reported that the project, being in notified industrial area i.e., MIDC- Tarapur vide Notification No. IDC 2180/102842/2385/UDHYOG-14 dated 2.7.1980 is exempted from the public hearing as per the Ministry's O.M. J-11011/321/2016-IA. II(I) dated 27.04.2018.

18. The PP proposed to set up an Environment Management Cell (EMC) by engaging Director- GM- Process Manager- Sr. Manager EHS – safety officer for the functioning of EMC.

19. The PP reported that total of 510 trees are to be developed, with the total Carbon sequestration potential of 355 t CO<sub>2</sub> e per annum.

20. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.

21. The estimated project cost is Rs.3.10 Crore including existing investment of Rs.2 crores. Total Employment will be 5 persons as direct & 5 persons indirect after expansion.

22. The proposal was earlier considered in the 70th EAC meeting held on 4th December, 2023, wherein the EAC deferred the proposal for want of requisite information. Reply to the same was submitted by the PP, which is as follows:

| S. No. | Queries Raised by EAC   | Reply by PP  |
|--------|---|--|
| (i)    | <p>Consent to Operate granted by MPCB vide No.: MPCB/ROT/TR-I/17021/15 dtd: 21/03/2016 valid upto 31/10/2021. PP has not submitted Certified compliance to the existing CTO conditions as per Ministry's OM dated 8.6.2022. PP has to submit latest Certified compliance report issued by MPCB for the existing CTO conditions.</p> | <p>The existing CTO from MPCB for inorganic chemicals is (Zirconium Products) valid till 31.10.2025.</p> <p>The Consent compliance report issued by RO was obtained on 06.11.2023 vide reference MPCB/ROT/P/2012300014/408. Copy for the same is submitted.</p>  |
|        | <p>Reasons for not obtaining the EC for the existing industrial unit. Please submit the Copy of CTE.</p>  | <p>Industry is manufacturing only Inorganic products. Therefore, EC is not required for the existing industrial unit.</p> <p>PP have applied for CTE for the organic products from MPCB vide UAN No. : 0000190979. The application is under process and we are being directed by the Board to submit EC to issue the CTE</p> |
| (ii)   | <p>Quantified and specific compliance and action plan for the additional safeguard measures prescribed in the Ministry's O.M. dated 31.10.2019 for critically and</p>   | <p>Quantified and specific compliance and action plan for the additional safeguard measures prescribed in the Ministry's O.M. dated 31.10.2019 is submitted.</p>   |

|  |   |     |   |                               |                               |            |
|--|---|-----|---|-------------------------------|-------------------------------|------------|
|  | severely polluted areas.  |     |   |                               |                               |            |
| (iii)  | Details of carbon foot print and carbon sequestration study w.r.t. existing and proposed expansion project. | Sr. | Product details (Unit MT)                                 | Scope 1 Emission (kg CO2 eq.) | Scope 2 Emission (kg CO2 eq.) | Unit       |
|  |   | 1.  | Melamine Formaldehyde Resin                               | 177.48                        | 328.04                        | kg CO2 eq. |
|  |   | 2.  | Sulphonated Melamine Formaldehyde Resin (liquid & Powder) | 254.31                        | 379.02                        | kg CO2 eq. |
|  |   | 3.  | Acrylic Polymers  | 162.11                        | 266.87                        | kg CO2 eq. |
|  |   | 4.  | Poly-Carboxylate Ether                                    | 185.44                        | 298.31                        | kg CO2 eq. |
|  |   | 5.  | Polyamideamine-Epichlorohydrin (PAAE Resin)               | 364.18                        | 447.02                        | kg CO2 eq. |
|  |   | 6.  | Acrylic Polymers (Dispersing Agents)                      | 169.29                        | 305.56                        | kg CO2 eq. |
|  |   | 7.  | Ammonium Zirconium Carbonate (Existing Product)           | 24.56                         | 32.01                         | kg CO2 eq. |
|  |   | 8.  | Potassium Zirconium Carbonate (Existing Product)          | 26.54                         | 38.46                         | kg CO2 eq. |
| <p>Quantification of Carbon Sequestration (Carbon offset) through Green Area &amp; Renewable Energy</p> <p>816 m<sup>2</sup> will be developed as grass area. Grass being a part of vegetation will also help to reduce carbon footprint at the project site. So, the total carbon footprint reduction Grass (t CO<sub>2</sub>e/year) at the project site will be: 0.31 t CO<sub>2</sub>e/year</p> <p>Total annual consumption= 250560 kW= 250.56 MW</p> <p>Energy saved by using energy efficient fixtures = 50 MWh/year</p> <p>Effective annual consumption after saving</p> <p>= (250 – 50) = 200 MWh/year</p> <p>Carbon footprint energy saving (tCO<sub>2</sub> eq/year):</p> |   |     |   |                               |                               |            |

|      |   |  |                           |                                    |                                      |  |
|------|---|--|---------------------------|------------------------------------|--------------------------------------|--|
|      |   | <p>= 49 t CO<sub>2</sub>e/year</p> <p>Carbon Footprint Reduction by renewable energy saving (tCO<sub>2</sub> eq./year)</p> <p>= Carbon Footprint solar (tCO<sub>2</sub> eq./year) + Carbon Footprint energy saving</p> <p>= 4 + 49</p> <p>= 53 t CO<sub>2</sub> e/year</p>   |                           |                                    |                                      |  |
| (iv) | Revised capital and Recurring cost of EMP                     | Sr. No   | Particulars               | Responsibility in the Organization | Proposed Capital Cost (Rs. In Lacs.) | Proposed Recurring Cost (Rs. Lacs/Annum) |
|      |   | 1  | Air pollution control     | Plant In charge                    | 3                                    | 1.0                                      |
|      |   | 2  | Water Pollution control   | Plant In charge                    | Nil                                  | Nil                                      |
|      |   | 3  | Noise pollution control   | Plant In charge                    | Nil                                  | Nil                                      |
|      |   | 4  | Occupational health care  | HR/Admin/ Plant In charge          | 1.50                                 | 1.50                                     |
|      |   | 5  | Environmental Monitoring  |                                    | 0                                    | 2.00                                     |
|      |   | 6  | Green Belt Development    | HR/ Plant In charge                | 4.00                                 | 0.50                                     |
|      |   | 7  | Hazardous & Non-hazardous | HR/ Plant In charge                | 1.50                                 | 0.50                                     |
|      |   | 8  | Rain Water Harvesting     | Plant In charge                    | 4.00                                 | 0.50                                     |
|      |   |  | Grand Total               |                                    | 14.00                                | 6.00                                     |
| (v)  | Details of energy conservation measures proposed in the Unit. | <p>The average sunshine in considered as 7- 8 hrs./day. It is planned to install solar-panels admeasuring about 150 sq.m.</p> <p>Considering that, solar-energy conversion to electric-energy being 20% each kW/Hr. is generated by</p> <p>5.5 sq.m. of solar-panel. Contemplating 8.0 hrs. sunshine everyday the power generation shall be of the order of 27.3 kW/day.</p> <p>The stored solar-energy shall be utilized for the street lighting application.</p> |                           |                                    |                                      |  |

|      |  |   |
|------|--|---|
| (vi) | Surface Water quality for baseline study shows BOD level is at higher side. Please recheck the data. | In case of surface water monitoring results being a large MIDC with extensive no. of chemical, API, textile pharmaceutical, industries surface water quality is affected.<br><br>Range of TDS 400 - 500, TH 105 - 200, BOD 70-160 and E-Coli is present in the surface water. |
|------|--|---|

### 23. Deliberations by the EAC

During deliberations, EAC discussed the following issues:

- PP submitted the latest Certified compliance report issued by MPCB for the existing CTO conditions. The Consent compliance letter issued by RO on 06.11.2023 vide reference MPCB/ROT/P/2012300014/408 along with details to the compliance to the consent conditions is submitted.
- PP submitted the Quantified and specific compliance and action plan for the additional safeguard measures prescribed in the Ministry's O.M. dated 31.10.2019 for critically and severely polluted areas.
- PP informed that STP of 1 KLD and ETP of 1 KLD will be provided to treat the sewage and industrial effluent generated in the proposed unit respectively.
- PP submitted the details of carbon foot print and carbon sequestration study w.r.t. existing and proposed expansion project. Total carbon emission reduction: 796.74 tCO<sub>2</sub>e/Annum, Percentage Reduction:  $(796.74/3,257.28) \times 100 = 24.46\%$ .
- PP informed that the total green-belt area shall be 816 sq.m. (40% of plot area). 255 sq.m. will be provided for the plantation of 500 nos. of trees within the plot. For rest of the green belt, they have acquired 1500 sq.m. of land in adjacent village Vengini.
- PP submitted the revised capital and Recurring cost of EMP:

| Sr. No | Particulars              | Responsibility in the Organization | Proposed Capital Cost (Rs. In Lacs.) | Proposed Recurring Cost (Rs. Lacs/Annum) |
|--------|--------------------------|------------------------------------|--------------------------------------|--|
| 1      | Air pollution control    | Plant In charge                    | 14                                   | 2.5                                      |
| 2      | Water Pollution control  | Plant In charge                    | 7                                    | 0.5                                      |
| 3      | Noise pollution control  | Plant In charge                    | 1.5                                  | Nil                                      |
| 4      | Occupational health care | HR/Admin/ Plant In charge          | 1.50                                 | 1.50                                     |
| 5      | Environmental Monitoring |                                    | 0                                    | 6.00                                     |
| 6      | Green Belt Development   | HR/ Plant In charge                | 4.00                                 | 0.50                                     |

|   |                           |                     |      |      |
|---|---------------------------|---------------------|------|------|
| 7 | Hazardous & Non-hazardous | HR/ Plant In charge | 5.00 | 2.00 |
| 8 | Rain Water Harvesting     | Plant In charge     | 4.00 | 0.50 |
|   | Grand Total               |                     | 37   | 13.5 |

• PP submitted revised CER plan and its break up is as given below:

| Sr.                  | CER Activities proposed   | Budget (in Rs. Lakhs) |
|----------------------|---|-----------------------|
| 1.                   | Solar system (8 kW) in Pam & Tembhi village                     | 4                     |
| 2.                   | RO water filter (4 nos.) for ZP Schools of Pam & Tembhi village | 1                     |
| 3.                   | Avenue Tree Plantation at Pam & Tembhi village                  | 2                     |
| 4.                   | OWC machine for Pam & Tembhi village                            | 5                     |
| 5.                   | Environmental awareness program in Pam & Tembhi village         | 0.40                  |
| Total (in Rs. Lakhs) |   | 12.40                 |

PP submitted the revised greenbelt development plan covering with 40% of plot area, and PP submitted an undertaking reporting that a plot has been taken over on lease & license basis in village Vengini, dist. : Palghar admeasuring around 3,000 Sq.Mt. for a period of 10 years (renewable upto 50 years) for a total monthly rent of Rs.40,000/=. The monthly rent shall be paid jointly as Rs.20,000/= by each company. M/s. Nayakem Organics Pvt. Ltd. (Unit-II) & M/s. Nikisu Fine Chemicals Pvt. Ltd. shall jointly build and maintain the acquired land as green-belt, according to the norms prescribed by the EC Committee. Each Company shall claim and possess 1500 Sq.Mt. of land, in the documentation related to their environment clearance. The Committee suggested to submit the coordinates of land area to the IRO, MoEF&CC.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC deliberated the Onsite and Offsite Emergency plans and also the various mitigation measures proposed during the implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, as amended from time to time.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for the grant of environmental clearance.

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained

or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

**24. The EAC, after detailed deliberations, recommended the project for the grant of environmental clearance, subject to the compliance of the terms and conditions as under, and general terms and conditions in Annexure-I:**

- (i) Stack of 30 m height shall be provided to LDO fired boiler 500 Kg/Hr and Hot air Generator 4 Kcal/Hr as per CPCB Norms.
- (ii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB. Odour management plan shall be implemented.
- (iii) The total fresh water requirement from MIDC water supply shall not exceed 54 m<sup>3</sup>/day.
- (iv) NOC from the Concerned Local authority shall be obtained before start of the construction of plant and drawing of the MIDC water supply for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (v) Effluent generation shall not exceed 2.40 m<sup>3</sup>/day and that shall be treated through primary treatment & recycle reused. Sewage generation shall be 600 litre/day and treated in the STP. Treated sewage shall be used for horticulture purpose. The plant shall be based on Zero Liquid discharge system.
- (vi) The PP shall develop/maintain 5-10 m thick greenbelt over an area of 40.0 % of total plot area i.e., 816 sq.m area shall be developed within plant premises, preferably within one year of grant of EC. In addition to this PP shall develop greenbelt 1500 sq.m. of land in adjacent village Vengini The number of saplings 347 shall be planted and should be of sufficient height, preferably 6-ft within the plant premises. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- (vii) Rain water collection tank of capacity 15 KL shall be installed. This water shall be filtered and used for boiler-feed, cooling-tower, make-up and domestic applications.
- (viii) All the hazardous waste shall be managed and disposed as per the HWM Rules 2016. Hazardous waste such as Distillation Residue and Off Specification Products shall be either send to common incineration site or send for coprocessing. Solid waste shall be segregated into dry and wet garbage at

site in accordance to the Solid Waste Management Rules, 2016. Wet waste shall be converted into compost and used as manure for greenbelt development.

- (ix) Monitoring of the compliance of EC conditions shall be submitted with third party audit every year.
- (x) As proposed, an amount of ₹ 12.40 lakhs shall be allocated towards CER.
- (xi) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage Director- GM- Process Manager- Sr. Manager EHS – safety officer. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- (xii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is ₹ 37 Lakhs (Capital cost) and Rs. 13.5 Lakhs per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- (xiii) No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.
- (xiv) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- (xv) The project proponent shall comply with the environment norms for synthetic organic chemical as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 608 (E), dated 21.7.2010 under the provisions of the Environment (Protection) Rules, 1986.
- (xvi) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The occupier of new as well as expansion projects shall be required to comply with the provisions of the MSHIC Rules, 1989 including notifying their activities or seeking site approval from the concerned

authorities, to address operational safety aspects. In doing so, various schedule, particularly Schedule-5 of the said rules may be referred.

- (xvii) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.
- (xviii) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.
- (xix) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xx) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.
- (xxi) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (xxii) The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (xxiii) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.
- (xxiv) As proposed, PP shall comply with the following mitigation measures as Per Ministry's Office Memorandum 31st October, 2019 regarding Projects located in Critically Polluted Area

| Environment | Mitigation Measures               | Compliance |
|-------------|-----------------------------------|------------|
| Air         | Stipulation Of Conditions Such As |            |

|  |     |   |  |
|--|-----|---|--|
|  | I   | Stack emission levels should be stringent than the existing standards in terms of identified critical pollutants.   | The parameters like PM10, PM2.5, SO2, NOX will follow stringent norms. PP shall have a baby boiler of 500 kg/hr. and a hot-air generator of 4.0 lac k.cal/hr. capacity. The stack height connected to them shall have 30 mt. from GL. They are exploring the possibilities of using CNG in place of LDO as fuel. There shall be a DG-Set of 30 kVA having stack height of 5 m. above the highest point of our building. The emission levels shall be monitored lower than the prescribed under MPCB norms. |
|  | ii  | CEMS may be installed in all large/medium red category industries (air polluting) and connected to SPCB and CPCB servers  | Proposed unit is small scale industry. PP plan to use CNG. There is no process related fugitive emissions.   |
|  | iii | Effective fugitive emission control measures should be imposed in the process, transportation, packing etc.   | Condensers will be used to control fugitive emissions. All the products and raw-materials shall be packed in air tight containers, and transported through closed road transport vehicles. There shall be no fugitive emission through process or transportation related activities.   |
|  | iv  | Transportation of materials by rail/conveyor-belt, wherever feasible be avoided.  | No rail / conveyer-belt shall be in use.   |
|  | V   | Best available technology may be used. For example, usage of EAF/SAF/IF in place of cupola furnace usage of supercritical technology in place of sub-critical technology. | There shall be no cupola. Baby boiler and hot-air generator shall be in use.   |

|       |                                   |  |  |
|-------|-----------------------------------|--|--|
|       | Vi                                | In case of green-belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever feasible.  | The total green-belt area shall be 816 sq.m. (40% of plot area). 255 sq.m. will be provided for the plantation of 500 nos. of trees within the plot.   |
|       |                                   |  | For rest of the green belt, they have acquired 1500 sq.m. of land in adjacent village Vengini.   |
|       | vii                               | Stipulation of green-belt outside the project premises such as avenue plantation, vacant areas, social forestry etc.   | Ample plantation is done outside our frontal area of plot covering up-to the road. For green belt, they have acquired 1500 sq.m. of land in adjacent village Vengini.  |
|       | viii                              | Assessment of carrying capacity of transportation load on roads inside the industrial premises. If roads required to be widened, shall be prescribed as a condition. | The inside premises road is amply wide, 6 mt. and green-belt is suitably developed. they are located in a notified state govt. industrial area..   |
| Water | Stipulation Of Conditions Such As |  |  |
|       | i                                 | Reuse / recycle of treated wastewater wherever feasible.   | The sewage generation will be 600 litre/day & effluent is 100 litre/day. They will installed STP of 1 KLD and ETP of 1 KLD to treat the sewage and effluent generated in the proposed unit. Treated waste water will be reused for horticulture purpose. |
|       | ii                                | Continuous monitoring of effluent quality / quantity in large and medium red category industries (water polluting)   | They shall be a ZLD small-scale industry. There is no discharge.   |

|  |     |   |   |
|--|-----|---|---|
|  | iii | A detailed water harvesting plan may be submitted by the project proponent. | The rooftop rainwater shall be collected.<br>As per IMD records, annual rainfall for Tarapur is 1874 mm.<br>Total roof area available for RWH is 240 sq. m.<br>Cover Shed where RWH is possible is 240 sq. m<br>Annual Rainfall: 1874 mm or 1.874 m<br>Water Collected: $1.874 \times 240 \times 0.9 = 404.78$ m <sup>3</sup> /season<br>Rain water collection tank of capacity 15 KL has been planned.<br>This water shall be filtered and used for boiler-feed, cooling-tower, make-up and domestic applications. |
|  | iv  | Zero liquid discharge wherever techno economically feasibility.             | Proposed plant is small-scale ZLD Unit.   |

|      |                                   |  |  |
|------|-----------------------------------|--|--|
|      | v                                 | In case, domestic waste water generation is more than 10 KLD, industry may install STP   | STP of 1 KLD and ETP of 1 KLD will be provided to treat the sewage and effluent generated in the proposed unit.  |
| Land | Stipulation Of Conditions Such As |  |  |
|      | i                                 | Increase of green-belt cover by 40% of the total land area beyond the permissible requirement of 33%, where able feasible for new project. | Ample plantation shall be done outside our frontal area of plot covering up-to the road. The green-belt area sourced outside shall be of about 600 sq.mt. with avenue plantation.          |
|      | ii                                | Stipulation of green-belt outside the project premises such as avenue plantation in vacant areas, social forestry etc.                     | Pollution resistance / tolerant and native species should be selected for green-belt development.<br>We shall consult the forest department is selecting the native and avenue plantation. |
|      | iii                               | Dumping of waste (fly-ash, slag, red-mud etc.) may be permitted only at designated locations approved by SPCBs / CPCB                      | They shall observe and honor this aspect of disposal.  |

|                               |    |   |  |
|-------------------------------|----|---|--|
|                               | iv | More stringent norms for management of hazardous waste. The waste generated should be preferably utilized in co-processing. | The waste will be managed as per the prevailing norms.<br>7.5 kg/day of Municipal Solid waste will be generated in the proposed unit.<br>4.5 kg/day of will be Biodegradable waste and will be composted. The compost will be used as manure for green belt development.<br>Non-biodegradable waste of 3 kg/day will be disposed of through recycler.<br>Around 30 kg/month of hazardous waste will be generated on site. Which will be sent to Mumbai Waste management, Taloja. |
| Other Conditions (Additional) |    |   |  |
|                               | i  | Monitoring of compliances of EC conditions may be submitted with third party audit every year.                              | They shall honor the conditions stipulated in EC. We shall engage and appoint an authentic organization for guidelines to ensure the pollution abatement.  |
|                               | ii | For SPA and 2 times for CPA, in case of Environment Clearance.  | Budget has been prepared amounting to a tune of Rs. 12.40 Lakhs i.e, 4% of the capital investment (Rs.3.10 Cr) under Corporate Environment Responsibility (CER) in accordance with the provisions of the MoEF&CC Office Memorandum no.F.No.22- 23/2018-IA.III (Pt) dated 31st October, 2019  |

#### **Agenda No. 71.6**

**Proposed establishment of Bulk Drugs & Drug Intermediates manufacturing unit with production capacity of 102.0 MT/MONTH located at Plot No. 4308, G.I.D.C. Industrial Estate, Ankleshwar, Dist.: Bharuch, Gujarat by M/s. Rutain Pharma Chem - Consideration of Environmental Clearance**

**[Proposal No. IA/GJ/IND3/435633/2023; File No. IA-J-11011/431/2022-IA-II(I)]**

1. The proposal is for the Environmental Clearance to the Proposed establishment of Bulk Drugs & Drug Intermediates manufacturing unit with production capacity of 102.0 MT/MONTH located at Plot No. 4308, G.I.D.C. Industrial Estate, Ankleshwar, Dist.: Bharuch, Gujarat by M/s. Rutain Pharma Chem.
2. The project/activity is covered under Category 'B' of item 5(f), Synthetic organic chemicals industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) but due to applicability of general condition i.e. project site is located in a critically polluted area, the proposal is treated as Category A and the proposal requires appraisal at central level by the sectoral EAC in the MOEF&CC.

3. The ToR was issued by the Ministry, vide letter no. IA-J-11011/431/2022-IA-II(I); dated 02nd January, 2023. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is an Fresh case. The proposal is placed in this 70th EAC meeting on 5th December 2023, wherein the PP along with accredited Consultant, M/s. Jyoti Om Chemical Research Centre Pvt. Ltd. (NABET Accreditation No.: NABET/EIA/2124/SA 0198 Valid till 17.06.2024] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:
4. The PP reported that the Existing land area is 2181.0 m2, no additional land will be used for proposed expansion no R& R is involved in the Project. The details of products to be manufactured are as follows:

| Sr. No.                    | Name of Product  | CAS No.    | Quantity (MT/Month) |          |       | End Use   |
|----------------------------|--|------------|---------------------|----------|-------|---|
|                            |  |            | Existing            | Proposed | Total |   |
| PRODUCTS AS PER EARLIER EC |  |            |                     |          |       |   |
| 1.                         | DICLOFENAC SODIUM  | 15307-79-6 | 35                  | -35      | 00    | Relieve pain, swelling  |
| 2.                         | DICLOFENAC POTASSIUM                                     | 15307-81-0 |                     |          |       | For treatment of primary dysmenorrhea. For relief of mild to moderate pain. For relief of the signs and symptoms of osteoarthritis. |
| 3.                         | ACELOFENAC   | 89796-99-6 |                     |          |       | For the relief of pain and inflammation in osteoarthritis, rheumatoid arthritis and ankylosing spondylitis                          |
| 4.                         | ALBENDAZOLE  | 54965-21-8 |                     |          |       | Hydatib Disease   |
| 5.                         | 2, 6 – DICHLORO DIPHENYLAMINE (DCDPA)                    | 15307-93-4 |                     |          |       | As an intermediate of N – CHLOROACETYL-N-PHENYL2, 6-DICHLORO DIPHENYL ANILINE   |
| 6.                         | N – CHLOROACE TYL-NPHENYL-2, 6-DICHLORO DIPHENYL ANILINE | 15308-01-7 |                     |          |       | As an intermediate of 1 – (2, 6 – DICHLOROPHE NYL) – 2 – INDOLINONE   |
| 7.                         | 1 – (2, 6 – DICHLOROPH                                   | 15362-40-0 |                     |          |       | Diclofenac Sodium/ Potassium  |

|     |   |                  |  |  |   |
|-----|---|------------------|--|--|---|
|     | ENYL) – 2 –<br>INDOLINONE                                   |                  |  |  |   |
| 8.  | AMISULPRIDE   | 53583-<br>79-2   |  |  | Used for reduction of patient distress. It is often associated with management of agitation and sometimes aggressive behavior.  |
| 9.  | 2- AMINOBIPHENYL  | 90-41-5          |  |  | Valsartan / Sacubitril  |
| 10. | 4-AMINO-5-<br>ETHYLSULFO NYL-<br>2- METHOXYBE<br>NZOIC ACID | 71675-<br>87-1   |  |  | An impurity found in Amisulpride (A633250). Amisulpride EP Impurity E   |
| 11. | ETORICOXIB  | 202409-<br>33- 4 |  |  | In Treatment of Arthritis   |
| 12. | FLURBIPROFEN  | 5104-49-<br>4    |  |  | Used for the symptomatic treatment of rheumatoid arthritis, osteoarthritis and ankylosing spondylitis   |
| 13. | GLIMEPIRIDE   | 93479-<br>97-1   |  |  | In treatment of High blood sugar, diabetes  |
| 14. | ITRACONAZOLE  | 84625-<br>61-6   |  |  | Used to treat fungal infections of the toenails. Also used to treat yeast infections of the mouth and throat or of the esophagus (tube that connects the throat to the stomach) |
| 15. | KETOCONAZOLE  | 65277-<br>42-1   |  |  | Used to treat skin infections   |
| 16. | LEVOSULPIRIDE   | 23672-<br>07-3   |  |  | Gastroesophageal reflux disease   |
| 17. | OMEPRAZOLE  | 73590-<br>58-6   |  |  | Used to treat frequent heartburn (heartburn that occurs at least 2 or more days a week) in adults   |
| 18. | PHENYLBORONIC<br>ACID                                       | 98-80-6          |  |  | In treatment of High blood sugar, diabetes  |
| 19. | RABEPRAZOLE   | 117976-<br>89- 3 |  |  | Used to treat peptic ulcer disease, gastroesophageal reflux disease, and  |

|   |  |              |                              |  |     | excess stomach acid production such as in Zollinger– Ellison syndrome                       |
|---|--|--------------|------------------------------|--|-----|---|
| 20.   | SOBOSFU VIR  | 1190307-88-0 |                              |  |     | Used to reduce the amount of hepatitis C virus in human body, which may help liver recover. |
|   | TOTAL  |              | 35.0                         | -35.0  | 0.0 |   |
| Note: All EC products will be discontinued. |  |              |                              |  |     |   |
| Sr. No.                                     | Name of Product  | CAS No.      | Proposed Quantity (MT/Month) | End Use  |     |   |
|   | Group-I OR:  |              |                              |  |     |   |
| 1.  | Darifenacin  | 133099-07-7  | 100                          | Antimuscarinic   |     |   |
| 2.  | Amlodipine Besylate  | 111470-99-6  |                              | To prevent strokes, heart attacks, and kidney problems |     |   |
| 3.  | Clonidine HCl  | 4205-91-8    |                              | Antihypertensive                                       |     |   |
| 4.  | Hydrochlorothiazide  | 58-93-5      |                              | Diuretic   |     |   |
| 5.  | Benazapril HCl   | 86541-74-4   |                              | Antihypertensive                                       |     |   |
| 6.  | Lacidipine Hydrochloride   | 103890-78-4  |                              | To treat hypertension                                  |     |   |
| 7.  | Tiagabine HCl  | 145821-59-6  |                              | Anticonvulsant   |     |   |
| 8.  | Pseudoephedrine HCl  | 345-78-8     |                              | Nasal decongestant                                     |     |   |
| 9.  | Buprenorphine HCl  | 53152-21-9   |                              | To treat severe pain                                   |     |   |
| 10.   | Meloxicam  | 71125-38-7   |                              | Anti-inflammatory                                      |     |   |
| 11.   | Larnoxicam   | 70374-39-9   |                              | Anti-inflammatory                                      |     |   |
| 12.   | Alendronate Sodium   | 121268-17-5  |                              | To prevent and treat osteoporosis                      |     |   |
| 13.   | Ivabradine   | 148849-67-6  |                              | To treat adults who have chronic heart failure         |     |   |
| 14.   | Dipyridamole   | 58-32-2      |                              | Antiplatelet   |     |   |
| 15.   | Tranexamic Acid  | 1197-18-8    |                              | To treat heavy bleeding                                |     |   |
| 16.   | Zolpidem Tartrate  | 99294-93-6   |                              | To treat insomnia                                      |     |   |
| 17.   | Phthaloyl Amlodipine   | 88150-62-3   |                              | Treatment of hypertension and cardiovascular disease   |     |   |
| 18.   | Sucralfate   | 54182-58-0   |                              | To treat and prevent duodenal ulcers                   |     |   |
| 19.   | 1-(3-Chlorophenyle)-4-(3-Chloro propyle)piperazine Hydrochloride | 39577-43-0   |                              | Preparation of Trazodone                               |     |   |
| 20.   | Azythromycin   | 83905-01-5   |                              | Antibiotic   |     |   |
| 21.   | Amisulpride  | 53583-79-2   |                              | Antipsychotic  |     |   |
| 22.   | Hydroxy Chloroquine Sulphate                                     | 118-42-3     |                              | Antimalarial   |     |   |
| 23.   | Tiropamide   | 53567-47-8   |                              | Antispasmodic  |     |   |
| 24.   | Atorvastatin Calcium Trihydrate                                  | 134523-03-8  |                              | Beta Blockers & Cholesterol Reduction                  |     |   |

|     |  |               |    |  |
|-----|--|---------------|----|--|
| 25. | Didanosine   | 69655-05-6    |    | Treatment of HIV/AIDS  |
| 26. | Ezogabine  | 150812-12-7   |    | To control partial onset seizures  |
| 27. | Tapentadol Hydrochloride   | 175591-09-0   |    | Acute pain   |
| 28. | Tenofovir Disporoxil Fumarate  | 202138-50-9   |    | Anti-HIV   |
| 29. | Tioconazole  | 65899-73-2    |    | Antifungal   |
| 30. | Asenapine Maleate  | 85650-56-2    |    | To treat Mental/mood disorders   |
| 31. | Balofloxacin Dihydrate   | 151060-21-8   |    | Antibiotic   |
| 32. | Clinidipine  | 132203-70-4   |    | To treat Hypertension  |
| 33. | Nicardipine Hydrochloride  | 54527-84-3    |    | To treat High blood pressure   |
| 34. | Risedronate Sodium   | 115436-72-1   |    | Strengthen bone, treat or Prevent osteoporosis and treat Paget's disease of bone |
| 35. | Trospium Chloride  | 10405-02-4    |    | To treat overactive bladder  |
| 36. | Vildagliptin   | 274901-16-5   |    | To treat type 2 diabetes   |
| 37. | 2-chloroN,N-Diphenyl Acetamide   | 23088-28-0    |    | Intermediate of Indoline   |
| 38. | 2-Benzyl Amino-1-6- Fluoro-3-4-Dihydro-2-H-Chromen-2-yl-Ethanol                | 12900050-27-7 |    | Intermediate of Nebivolol HCl  |
| 39. | [2R-3R-1-DiMethyl Amino-3-Hydroxy Phenyl-2-Methyl Pentan-3-ol- Tartarate salt] | 1300037-87-9  |    | Intermediate of Tapentadol Hydrochloride   |
| 40. | 1-(4-bromo-3-methyl phenyl) ethanone   | 37074-40-1    |    | Intermediate of Velpatasvir  |
| 41. | 4-(2-methoxy ethyl) phenol   | 56718-71-9    |    | Intermediate of metoprolol   |
| 42. | Chlorpheniramine Maleate   | 113-92-8      |    | Antihistamine  |
| 43. | N-N-Dimethyl Amino Ethyl Chloride  | 4584-46-7     |    | Intermediate of Chlor pheniramine Maleate  |
| 44. | Levetiracetam  | 102767-28-2   |    | To treat seizures (epilepsy)   |
| 45. | (S)-+2-Amino butyramide Hydrochloride (SABAM)                                  | 7682-20-4     |    | Intermediate of Levetiracetam  |
| 46. | Lumefantrine   | 82186-77-4    |    | Antimalarial   |
| 47. | Rupatadine   | 182349-12-8   |    | Antihistamine  |
|     | Group-2 OR:  |               |    |  |
| 48. | Alfuzosin Hydrochloride  | 81403-68-1    | 50 | To treat benign prostatic hyperplasia  |
| 49. | Bendroflumethiazide  | 73-48-3       |    | Diuretic   |
| 50. | Losartan Potassium   | 124750-99-8   |    | To treat Hypertension  |
| 51. | Irbesartan   | 138402-11-6   |    | To treat Hypertension  |

|     |   |              |   |
|-----|---|--------------|---|
| 52. | Eprosartan Mesylate   | 144143-96-4  | To treat Hypertension   |
| 53. | Telmisartan   | 144702-48-4  | To treat Hypertension   |
| 54. | Valsartan   | 137862-53-4  | To treat Hypertension   |
| 55. | Olmesartan Medoxomil  | 144689-63-4  | To treat Hypertension   |
| 56. | Donepezil HCl   | 120014-06-4  | To treat dementia   |
| 57. | Nateglinide   | 105816-04-4  | To treat type 2 diabetes  |
| 58. | Sertraline HCl  | 79559-97-0   | Antidepressant  |
| 59. | Trazodone HCl   | 25332-39-2   | Antidepressant  |
| 60. | Aripiprazole  | 129722-12-9  | Antidepressant  |
| 61. | Pallperidone  | 144598-75-4  | Antipsychotic   |
| 62. | Pramipexole Dichloride  | 104632-25-9  | To treat Parkinson's disease                                    |
| 63. | Rivastigmine  | 129101-54-8  | To treat dementia   |
| 64. | Eszopicione   | 138729-47-2  | To treat insomnia   |
| 65. | Nebivolol Hydrochloride   | 169293-50-9  | To treat Hypertension   |
| 66. | Esomeprazole Magnesium Trihydrate   | 217087-09-7  | To treat stomach and esophagus problems                         |
| 67. | Dapoxetine Hydrochloride  | 129938-20-1  | Treatment of premature ejaculation                              |
| 68. | Prasugrel Hydrochloride   | 389574-19-0  | Antiplatelet  |
| 69. | Venlafaxine Hydrochloride   | 99300-78-4   | Antidepressant  |
| 70. | Dabigatran Etexilate Mesylate   | 872728-81-9  | Treatment to prevent blood clots in chronic atrial fibrillation |
| 71. | Lacosamide  | 175481-36-4  | To control partial onset seizures                               |
| 72. | Pitavastatin Calcium  | 147526-32-7  | Antilipemic   |
| 73. | Saxagliptin Hydrochloride   | 709031-78-7  | To treat type 2 diabetes  |
| 74. | Sildosin  | 160970-54-7  | To treat men with symptoms of an enlarged prostate              |
| 75. | 1-Cyclopropyl-6-Fluoro- 1,4-Dihydro-7- OctahydroPyrrolo-3-4- Pyridin-6-yl-8-Methoxy- 4-Oxo Quinoline-3- Carboxylic acid | 1029364-75-7 | Intermediate of Moxifloxacin                                    |

|      |  |             |   |   |
|------|--|-------------|---|---|
| 76.  | (S)-(+)-3 -aminomethyl- 5-methyl hexanoic acid (I)                     | 128013-69-4 |   | Intermediate of Pregabalin                  |
| 77.  | [3-(Trifluoro methyl)5,6,7,8-tetrahydro (4,3a) pyrazine hydrochloride] | 762240-92-6 |   | Intermediate of Sitagliptin                 |
| 78.  | Rivaroxaban  | 366789-02-8 |   | To treat and prevent blood clots            |
| 79.  | Perindopril Arginine   | 612548-45-5 |   | To treat Hypertension                       |
| 80.  | Azilsartan Kamedoxomil   | 863031-24-7 |   | To treat Hypertension                       |
| 81.  | Metropolol Succinate   | 98418-47-4  |   | To treat Hypertension                       |
|      | Group-3 OR:  |             |   |   |
| 82.  | Doxazosin Mesylate   | 77883-43-3  | 25  | To treat Hypertension                       |
| 83.  | Amisulpride  | 71675-85-9  |   | Antipsychotic                               |
| 84.  | Bisopropol Hemofumarate  | 104344-23-2 |   | To treat Hypertension                       |
| 85.  | Lisnopril  | 83915-83-7  |   | To treat high blood pressure                |
| 86.  | Flupiritine Maleate  | 75507-68-5  |   | Analgesic                                   |
| 87.  | Pregabalin   | 148553-50-8 |   | Antiepileptic                               |
| 88.  | Gabapentin   | 60142-96-3  |   | To prevent and control seizures             |
| 89.  | Celecoxib  | 169590-42-5 |   | Anti-inflammatory                           |
| 90.  | Loratidine   | 79794-75-5  |   | Antihistamine                               |
| 91.  | Duloxetine HCl   | 136434-34-9 |   | To treat depression                         |
| 92.  | Ranolazine   | 95635-55-5  |   | To treat chronic angina                     |
| 93.  | Simvastatin  | 79902-63-9  |   | To lower the risk of cardiovascular disease |
| 94.  | Fenofibrate  | 49562-28-9  |   | To treat high cholesterol level             |
| 95.  | Clopidogrel Bisulfate  | 67-56-1     |   | Antiplatelet                                |
| 96.  | Desloratidine  | 100643-71-8 |   | Antihistamine                               |
| 97.  | Tenatoprazole  | 113712-98-4 |   | To treat gastro esophageal reflux disease   |
| 98.  | Linezolid  | 165800-03-3 |   | Antibiotic                                  |
| 99.  | Sitagliptin Phosphate  | 654671-78-0 | To treat type 2 diabetes                  |   |
| 100. | Dronedaron Hydrochloride   | 141625-93-6 | Antiarrhythmic                            |   |
| 101. | Etoricoxib   | 202409-33-4 | Anti-inflammatory                         |   |
| 102. | Ilaprazole   | 172152-36-2 | To treat gastro esophageal reflux disease |   |
| 103. | Olanzapine   | 132539-06-1 | Antipsychotic                             |   |

|      |  |              |    |  |
|------|--|--------------|----|--|
| 104. | Raltegravir  | 518048-05-0  |    | Antiretroviral                           |
| 105. | Rosuvastatin Calcium   | 147098-20-2  |    | To treat high cholesterol                |
| 106. | Fesoterodine Fumarate  | 286930-03-8  |    | Antimuscarinic                           |
| 107. | Linagliptin  | 668270-12-0  |    | To treat type 2 diabetes                 |
| 108. | Lurasidone Hydrochloride   | 367514-88-3  |    | Antipsychotic                            |
| 109. | Varenicline Tartrate   | 375815-87-5  |    | To help stop smoking                     |
| 110. | R-1-2-7-ChloroBenzo-Thiophene-3-yl- Methoxy-2-2-4-DiChloroPhenyl-1H- Imidazole   | 99592-39-9   |    | Intermediate of Sertaconazole Nitrate    |
| 111. | 3,4-dihydroxy 5-nitrobenzaldehyde  | 116313-85-0  |    | Intermediate of Entacapone               |
| 112. | [1- (1,3_ Ni carbonyl - Ni-ene and hexahydrocyclopenta [c] pyrrole_2 (IH) - yl) -3-p- tolyl sulfonylurea] (Compound II) ]  | 1808087-53-7 |    | Intermediate of Gliclazide               |
| 113. | Trityl OLMESARTAN MEDOXIMIL  | 144690-92-6  |    | Intermediate of Olmesartan               |
| 114. | 7-4-4-Fluoro-Phenyl-6-Isopropyl-2-Methane Sulphonyl Methyl Amino-Pyrimidin-5-yl-3-5 Dihydro Hept-6-enoic acid Methyl Ester | 147118-40-9  |    | Intermediate of Rosuvastatin Calcium     |
| 115. | Sertraline Mandelate Salt  | 254731-40-3  |    | Intermediate Of Sertraline               |
| 116. | Sildenafil Citrate   | 171599-83-0  |    | To treat pulmonary arterial hypertension |
| 117. | Diphenyl Acetonitrile  | 86-29-3      |    | Intermediate of Loperamide               |
| 118. | Tramadol Hydrochloride   | 36282-47-0   |    | Opioid analgesics                        |
| 119. | Ibrutinib  | 936563-96-1  |    | To treat certain cancers                 |
| 120. | Acalabrutinib  | 1420477-60-6 |    | To treat certain cancers                 |
| 121. | Plerixafor   | 110078-46-1  |    | To treat certain cancers                 |
| 122. | Venetoclax   | 1257044-40-8 |    | To treat certain cancers                 |
| 123. | Imetinib mesylate  | 220127-57-1  |    | To treat certain cancers                 |
| 124. | Brivaracetam   | 357336-20-0  |    | Anticonvulsant                           |
|      | Group-4 OR:  |              |    |  |
| 125. | Memantine HCl  | 41100-52-1   | 10 | To treat Alzheimer's disease             |
| 126. | Phenylephrine HCl  | 61-76-7      |    | Decongestant                             |

|      |  |              |   |  |
|------|--|--------------|---|--|
| 127. | Emtricitabine  | 143491-57-0  |   | To treat HIV infection                             |
| 128. | Voriconazole   | 137234-62-9  |   | Antifungal   |
| 129. | Aliskiren Hemifumarate   | 173334-58-2  |   | To treat Hypertension                              |
| 130. | Ibandronate Sodium monohydrate   | 138844-81-2  |   | To treat certain types of bone loss (osteoporosis) |
| 131. | Levocetirizine DiHydrochloride   | 130018-87-0  |   | Antihistamine                                      |
| 132. | Vardenafil   | 224785-90-4  |   | To treat erectile dysfunction                      |
| 133. | 1-[[2'-(4,5-dihydro-5-oxo-4H-1,2,4-oxadiazol-3-yl)biphenyl-4-yl]methyl]-2-ethoxy-1H-benzimidazole-7-carboxylic acid                  | 147403-52-9  |   | Intermediate of Azilsartan Solvate                 |
| 134. | 2-cyclohexylidene-hydrazino-2-(3,4-dihydroxy benzyl)-propionic acid methyl ester / carbidopa methyl ester                            | 934371-48-9  |   | Intermediate of Carbidopa                          |
| 135. | 8-((R)-3-Azidopiperidin-1-yl)-7-(but-2-ynyl)-1,6-dihydro-3-methyl-6-methylene-1-((4-methylquinazolin-2-yl)methyl)-3H-purin-2(7H)-one | 1446263-38-2 |   | Intermediate of Linagliptin                        |
| 136. | Isopropyl 2S-2-S-Penta Fluoro Phenoxy Phosphoryl Amino propanoate]   | 1334513-02-8 |   | Intermediate of Sofosbuvir                         |
| 137. | [1-(3-methyl-1-phenyl-1H-pyrazol-5-yl)-piperazine acetate]   | 906093-30-9  |   | Intermediate of Teneagliptin                       |
| 138. | [5-{4-[(4-(5-Cyano-1H-indol-3-yl)-butyl]-piperazin-1-yl)-benzo furan-2-carboxylate methyl]   | 1451194-35-6 |   | Intermediate of Vilazodone hydrochloride           |
| 139. | (2R,3S)-2-(2,4-difluorophenyl)-3-(5-fluoropyrimidin-4-yl)-1-(1H-1,2,4-triazol-1-yl)butan-2-ol (R)-camsylate)                         | 188416-34-4  |   | Intermediate of Voriconazole                       |
| 140. | Fluvoxamine Maleate  | 61718-82-9   |   | Antidepressant                                     |
| 141. | Lopinavir  | 192725-17-0  |   | To treat HIV infection                             |
| 142. | Apixaban   | 503612-47-3  |   | To prevent blood clots                             |
|      | Group-5 OR:  |              |   |  |
| 143. | Rifapentine  | 61379-65-5   | 5 | To treat active tuberculosis                       |
| 144. | Candesartan  | 139481-59-7  |   | To treat Hypertension                              |
| 145. | Azilsartan Medoxomil   | 863031-21-4  |   | To treat Hypertension                              |

| Group-6 OR: |   |              |     |                |
|-------------|---|--------------|-----|----------------|
| 146.        | Remdesivir  | 1809249-37-3 | 1.2 | Antiviral      |
| 147.        | Escitalopram Oxalate  | 219861-08-2  |     | Antidepressant |
|             | TOTAL (Group 1: 100 MT/Month or Group2: 50 MT/Month or Group3: 25 MT/Month or Group4: 10 MT/Month or Group5: 5 MT/Month or Group6:1.2 MT/Month) |              | 100 |                |
|             | R&D Plant Pilot Product   |              | 2   |                |

5. The PP reported that there is no violation case as per the Notification No. S.O. 804(E) dated 14.03.2017 and no direction is issued under the E(P) Act/Air Act/Water Act
6. The PP reported that EC was granted by the SEIAA vide letter no.SEIAA/GUJ/EC/5(f)/266/2021 dated 18/03/2021; to the existing project for 'Synthetic Organic Chemicals [API & its Intermediates] in favour of M/s. Rutain Pharma Chem
7. The PP reported that Certified compliance report is obtained vide File No. J-11/95-2023-IROG NR dated 17th November 2023. During the site visit it was informed that unit had started construction and constructed the building for manufacturing of products but since the products have become obsolete, the unit has decided to discontinue the existing products. Tentative time expected for completion of construction will be around 24th February 2024. All the safety precautions are and will be taken till the time of completion of project
8. The PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wild Life Corridors etc. within 10 km distance from the project site. Amravati River, Dadhal is flowing at a distance of 4.33 km in ENE direction. One Schedule-I species Indian peafowl were observed in the 10 km radius from the proposed project for which conservation plan has been prepared and submitted.
9. The PP reported that the Ambient air quality monitoring was carried out at 8 locations during December-2020 to February-2021 and the baseline data indicates the ranges of concentrations as: PM10 (48-89  $\mu\text{g}/\text{m}^3$ ), PM2.5 (24-45  $\mu\text{g}/\text{m}^3$ ), SO2 (10-46  $\mu\text{g}/\text{m}^3$ ) and NO2 (12-51  $\mu\text{g}/\text{m}^3$ ). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.30  $\mu\text{g}/\text{m}^3$ , 0.60  $\mu\text{g}/\text{m}^3$  and 0.49  $\mu\text{g}/\text{m}^3$  with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).
10. The PP reported that the total water requirement is 46.33 m<sup>3</sup>/day of which freshwater requirement of 43.83 m<sup>3</sup>/day will be met from GIDC Supply. During monsoon season 4.5 KL/Day harvested rain water will be used in Boiler. Effluent of 28.2 m<sup>3</sup>/day quantity will be treated through Primary ETP and then sent to Common MEE of M/s. BEIL, Ankleshwar for the final disposal and Sewage effluent of 2.5 KLD will be generated from domestic activities and treated in STP and STP treated effluent will be re-used for Gardening purpose. The plant will be based on Zero Liquid discharge system

11. Power requirement after expansion will be 1000 KVA and will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Unit will have 1 Nos. of DG sets (500 KVA) capacity, as standby during power failure. Stack (height 11 m) will be provided as per CPCB norms to the proposed DG sets.

12. Unit will have 1 No. of Boiler (2.0 TPH) and 1 No. of Thermic fluid heater (4 lacs Kcal/Hr) will be installed with a stack of height, of 30 m will be installed for controlling the particulate emissions within the statutory limit of 120 mg/Nm<sup>3</sup> for the proposed boilers.

### 13. Flue Gas Emission

| Sr. No. | Source of Emission                | Stack Height (meter) | Fuel   | Emission Standard  | Emission Standard as per Critically Polluted Area                                   | Air Pollution Control Equipment   |
|---------|-----------------------------------|----------------------|--|--|---|---|
| 1.      | Boiler (2.0 TPH)                  | 30                   | Natural Gas: 3500 SCM/Day / Agro Waste/ Briquettes of Bio-Coal: 4.5 MT/Day | PM < 150 mg/Nm <sup>3</sup><br>SO <sub>x</sub> < 100 ppm<br>NO <sub>x</sub> < 50 ppm | PM < 120 mg/Nm <sup>3</sup><br>SO <sub>x</sub> < 80 ppm<br>NO <sub>x</sub> < 40 ppm | Adequate Stack Height/ Multi-Cyclone Separator with Bag Filter & Water Scrubber |
| 2.      | Thermic Fluid Heater (4 Lac KCal) |                      |  |  |   |   |
| 3.      | D.G. set (500 KVA)                | 11                   | Diesel: 900 Lit/Day  |  |   | Adequate Stack Height   |

| Sr. No. | Particulars  | Requirement    | Remark          |
|---------|--|----------------|-----------------|
| 1.      | Natural Gas  | 3500 SCM/Day   | Local Supplier  |
| 2.      | Agro Waste/ Briquettes of Bio Coal                         | 4.5 MT/Day     | Local Supplier  |
| 3.      | Diesel (in case of power failure, DG set will be operated) | 900 Liter/ Day | Local suppliers |

14. Details of Process Emissions Generation and its Management: To manage the release of process gas emissions like HCl, SO<sub>2</sub>, Cl<sub>2</sub>, Br<sub>2</sub>, HBr, NH<sub>3</sub> and NO<sub>x</sub> from the reaction vessel, unit will install 3 nos of stacks. For emissions flowing out of the reaction vessel, the unit will provide an adequate stack height with a two-stage water + alkali scrubber, two-stage water + acid scrubber and two-stage alkali scrubber respectively as an APCM.

## 15. Process Gas Emission

| Sr. No. | Vent Attached To                 | Height From Ground Level | Expected Pollutants    | Emission Standard  | Emission Standard As Per Critically Polluted Area         | Air Pollution Control System      |
|---------|----------------------------------|--------------------------|------------------------|--|---|-----------------------------------|
| 1.      | Reaction Vessel-1 (Chlorination) | 18                       | HCl<br>SO <sub>2</sub> | < 20<br>mg/Nm <sup>3</sup><br>< 40<br>mg/Nm <sup>3</sup> | < 16<br>mg/Nm <sup>3</sup><br>< 32<br>mg/Nm <sup>3</sup>  | Two Stage Water + Alkali Scrubber |
| 2.      | Reaction Vessel (Chlorination)   |                          | Cl <sub>2</sub><br>HCl | < 9<br>mg/Nm <sup>3</sup><br>< 20<br>mg/Nm <sup>3</sup>  | < 7.2<br>mg/Nm <sup>3</sup><br>< 16<br>mg/Nm <sup>3</sup> |                                   |
| 3.      | Reaction Vessel (Bromination)    |                          | Br <sub>2</sub><br>HBr | < 5<br>mg/Nm <sup>3</sup><br>< 30<br>mg/Nm <sup>3</sup>  | < 4<br>mg/Nm <sup>3</sup><br>< 24<br>mg/Nm <sup>3</sup>   |                                   |
| 4.      | Reaction Vessel (Amination)      | 18                       | NH <sub>3</sub>        | < 175<br>mg/Nm <sup>3</sup>                              | < 140<br>mg/Nm <sup>3</sup>                               | Two Stage Water + Acid Scrubber   |
| 5.      | Reaction Vessel (Nitration)      | 18                       | NO <sub>x</sub>        | < 25<br>mg/Nm <sup>3</sup>                               | < 20<br>mg/Nm <sup>3</sup>                                | Two Stage Alkali Scrubber         |

## 16. Details of Solid waste/ Hazardous waste generation and its management: 18 Categories of Hazardous/Solid Wastes shall be generated from this Unit.

| Sr. no. | Type/ Name of Hazardous waste            | Specific Source of generation<br>(Name of the Activity, Product etc.) | Category and Schedule as per HW Rules. | Quantity (MT/ Annum) | Management of HW  |
|---------|--|---|--|----------------------|---|
| 1.      | Discarded Drums/Bags/ Containers/ Liners | Raw Material and Storage  | Sch-I/<br>33.1                         | 40.0                 | Collection, Storage, Transportation and sell to Register Re-processors after decontamination. |
| 2.      | Used / Spent Oil                         | Equipment & Machinery   | Sch-I/<br>5.1                          | 0.3                  | Collection, Storage, Transportation and sell to registered recycler.                          |

|     |                         |                    |                |         |   |
|-----|-------------------------|--------------------|----------------|---------|---|
| 3.  | ETP Sludge              | ETP                | Sch-I/<br>35.3 | 40      | Collection, Storage, Transportation and sent to common TSDF site.                                     |
| 4.  | Distillation Residue    | Distillation       | Sch-I/<br>20.3 | 343     | Collection, Storage, Transportation and sent for co-processing in cement industries or CHWIF Site.    |
| 5.  | Spent Carbon            | Process            | Sch-I/<br>28.2 | 376.92  | Collection, Storage, Transportation and sent for co-processing in cement industries or to CHWIF site. |
| 6.  | Spent Catalyst          | Process            | Sch-I/<br>28.3 | 376.92  | Collection, Storage, Transportation and sent to registered regenerator.                               |
| 7.  | Inorganic Solid Waste   | Process            | Sch-I/<br>28.1 | 299.4   | Collection, Storage, Transportation and sent to common TSDF site.                                     |
| 8.  | Organic Waste           | Process            | Sch-I/<br>28.1 | 1284.96 | Collection, Storage, Transportation and sent for co-processing in cement industries or CHWIF site.    |
| 9.  | Hydrochloric Acid (30%) | Scrubber           | Sch-II/<br>B15 | 1397    | Collection, Storage and Reuse within premises or sell to end user under Rule-9 permission.            |
| 10. | Sulphuric Acid (80%)    | Process            | Sch-II/<br>B15 | 519.94  |   |
| 11. | Liq. Ammonia            | Process & Scrubber | Sch-I/<br>28.1 | 579.94  |   |
| 12. | Sodium Bisulphite (25%) | Scrubber           | Sch-II/<br>B36 | 265.82  | Collection, Storage, Transportation & sell to end user under Rule-9 permission.                       |
| 13. | Spent Solvent           | Process            | Sch-I/<br>28.6 | 10854   | Collection, Storage, in-house Distillation and Reuse within plant premises.                           |
| 14. | Hydrogen Bromide        | Scrubber           | Sch-I/<br>28.1 | 152.82  | Collection, Storage, Transportation & sell to end user under Rule-9 permission.                       |
| 15. | Sodium Bromide          | Scrubber           | Sch-I/<br>28.1 | 292.54  |   |

|     |                        |          |                |        |  |
|-----|------------------------|----------|----------------|--------|--|
| 16. | Ammonium Sulphate      | Scrubber | Sch-I/<br>28.1 | 242.50 |  |
| 17. | Sodium Nitrate         | Scrubber | Sch-I/<br>28.1 | 50.0   |  |
| 18. | Poly Aluminum Chloride | Scrubber | Sch-I/<br>28.1 | 100.0  |  |

## Non-Hazardous Waste

| Sr. No. | Name of Waste   | Quantity<br>MT/ Annum | Final Disposal   |
|---------|-----------------|-----------------------|--|
| 1       | Fly Ash         | 105                   | Collection, Storage, Transportation and send to authorized fly ash Brick manufacturing unit.                                   |
| 2       | Paper waste     | 0.6                   | Collection, Storage, Transportation and send to registered vendor.   |
| 3       | E-Waste         | 0.5                   | Collection, Storage, Transportation and Disposal as per E-waste manual.  |
| 4       | Glass Waste     | 0.12                  | Collection, Storage, Transportation and send to common TSDF site.  |
| 5       | STP Sludge      | 30                    | Collection, Storage and use as manure in gardening.  |
| 6       | Dry Solid Waste | 4.86                  | Collection, Storage and Management as per Municipal Solid waste Management Rule-2016   |
| 7       | Wet Solid Waste | 3.14                  | Collection, Storage, Conversion into compost and use as manure for gardening as per Municipal Solid waste Management Rule-2016 |

17. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 132.2 Lakhs (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 312.0 Lakhs per annum. Industry proposes to allocate Rs. 0.24 Crores towards Corporate Environment Responsibility.

18. Industry has already developed 400 m<sup>2</sup> and will develop 473 m<sup>2</sup> greenbelt in an area of (40 %) i.e. 873.0 m<sup>2</sup> out of 2181.0 m<sup>2</sup>, total area of the project within premises and additional 800 m<sup>2</sup> (36.68 %) of the project outside premises. Total greenbelt area will be 76.68 %.

19. The PP reported that the project, being in notified industrial area (Notification No.GHU-78-20-GID-1977-660-CH dated 01.02.1978), is exempted from the public hearing as per the Para 7.III. Stage (3) (i) (b) of the EIA Notification, 2006 and O.M. No. J-111011/321/2016-IA. II(I) dated 27.04.2018

20. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environment Officer for the functioning of EMC.
21. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.
22. The estimated project cost is Rs.6 Crores including existing investment of Rs. 3.8 crores. Total Employment will be 11 persons as direct & 19 persons indirect after expansion.
23. The proposal was earlier considered in the 70<sup>th</sup> EAC meeting held on 4<sup>th</sup> December, 2023, wherein the EAC deferred the proposal for want of requisite information. Reply to the same was submitted by the PP, which is as follows:

| S. No. | Queries Raised by EAC  | Reply by PP   |
|--------|--|---|
|        | <p>It was noted that the existing EC granted by SEIAA was not implemented. The Committee desired to submit the progress (i.e. Physical and Financial) of the project on ground. Progress of the project shall be authenticated by the authorized auditor</p> | <p>Physical Progress of the project: - PP submitted the undertaking reporting that construction activities have been completed. The order of machineries will be placed and procured within a month and installed post completion of construction.</p> <p>Financial Progress: Unit would like to inform that the total cost of project is Rs. 6 crores and the unit has spent Rs. 3.8 crores. Further Rs. 2.2 crores will be spent for procurement of machineries and installation of environment management system.</p> <p>Unit has obtained the authenticated report from authorized auditor M/s. Shah Somaiya Malvi &amp; Associates vide Membership No: 604005, FRN: 153329W and UID: 23604005BGSPVC8135 dated: 14-12-2023.</p> <p>Physical and financial status of the project was also verified by IRO Gandhinagar and mentioned in Certified compliance report obtained vide File No. J-11/95-2023-IROG NR dated 17th November 2023. The Committee was satisfied with the progress of project.</p> |
|        | <p>Month wise action plan to achieve 33% greenbelt alongwith budget earmark.</p>   | <p>About 873.0 m<sup>2</sup> (40.0%) area is reserved for greenbelt development, out of total plot area 2181.0 m<sup>2</sup>.</p> <p>There are 100 nos. of trees planted along the periphery of the plant. Due to chances of damage to plants during construction, unit has proposed to plant additional 175 nos. of trees after completion of construction.</p> <p>Additional 800 sq. m. greenbelt will be developed in Kosamdi village.</p>   |



|  |  |    |  |                          |                |        |   |
|--|--|----|--|--------------------------|----------------|--------|---|
|  |  | 1. | Discarded Drums/Bags/ Containers/ Liners | Raw Material and Storage | Sch-I/<br>33.1 | 40.0   | Collection, Storage, Transportation and sell to Register Re-processors after decontamination.         |
|  |  | 2. | Used / Spent Oil                         | Equipment & Machinery    | Sch-I/<br>5.1  | 0.3    | Collection, Storage, Transportation and sell to registered recycler.                                  |
|  |  | 3. | ETP Sludge                               | ETP                      | Sch-I/<br>35.3 | 40     | Collection, Storage, Transportation and sent to common TSDF site.                                     |
|  |  | 4. | Distillation Residue                     | Distillation             | Sch-I/<br>20.3 | 343    | Collection, Storage, Transportation and sent for co-processing in cement industries or CHWIF Site.    |
|  |  | 5. | Spent Carbon                             | Process                  | Sch-I/<br>28.2 | 376.92 | Collection, Storage, Transportation and sent for co-processing in cement industries or to CHWIF site. |
|  |  | 6. | Spent Catalyst                           | Process                  | Sch-I/<br>28.3 | 376.92 | Collection, Storage, Transportation and sent to registered regenerator.                               |
|  |  | 7. | Inorganic Solid Waste                    | Process                  | Sch-I/<br>28.1 | 299.4  | Collection, Storage, Transportation and sent to common TSDF site.                                     |

|  |  |     |                         |                    |                |         |  |
|--|--|-----|-------------------------|--------------------|----------------|---------|--|
|  |  | 8.  | Organic Waste           | Process            | Sch-I/<br>28.1 | 1284.96 | Collection, Storage, Transportation and sent for co-processing in cement industries or CHWIF site. |
|  |  | 9.  | Hydrochloric Acid (30%) | Scrubber           | Sch-II/<br>B15 | 1397    | Collection, Storage and Reuse within premises or sell to end user under Rule-9 permission.         |
|  |  | 10. | Sulphuric Acid (80%)    | Process            | Sch-II/<br>B15 | 519.94  |  |
|  |  | 11. | Liq. Ammonia            | Process & Scrubber | Sch-I/<br>28.1 | 579.94  |  |
|  |  | 12. | Sodium Bisulphite (25%) | Scrubber           | Sch-II/<br>B36 | 265.82  | Collection, Storage, Transportation & sell to end user under Rule-9 permission.                    |
|  |  | 13. | Spent Solvent           | Process            | Sch-I/<br>28.6 | 10854   | Collection, Storage, in-house Distillation and Reuse within plant premises.                        |
|  |  | 14. | Hydrogen Bromide        | Scrubber           | Sch-I/<br>28.1 | 152.82  | Collection, Storage, Transportation & sell to end user under Rule-9 permission.                    |
|  |  | 15. | Sodium Bromide          | Scrubber           | Sch-I/<br>28.1 | 292.54  |  |
|  |  | 16. | Ammonium Sulphate       | Scrubber           | Sch-I/<br>28.1 | 242.50  |  |
|  |  | 17. | Sodium Nitrate          | Scrubber           | Sch-I/<br>28.1 | 50.0    |  |
|  |  | 18. | Poly Aluminum Chloride  | Scrubber           | Sch-I/<br>28.1 | 100.0   |  |

|   | <table border="1"> <thead> <tr> <th data-bbox="563 181 639 338">Sr. No.</th> <th data-bbox="639 181 823 338">Name of Waste</th> <th data-bbox="823 181 983 338">Quantity<br/>MT/<br/>Annum</th> <th data-bbox="983 181 1492 338">Final Disposal</th> </tr> </thead> <tbody> <tr> <td data-bbox="563 338 639 472">1</td> <td data-bbox="639 338 823 472">Fly Ash</td> <td data-bbox="823 338 983 472">105</td> <td data-bbox="983 338 1492 472">Collection, Storage, Transportation and send to authorized fly ash Brick manufacturing unit.</td> </tr> <tr> <td data-bbox="563 472 639 573">2</td> <td data-bbox="639 472 823 573">Paper waste</td> <td data-bbox="823 472 983 573">0.6</td> <td data-bbox="983 472 1492 573">Collection, Storage, Transportation and send to registered vendor.</td> </tr> <tr> <td data-bbox="563 573 639 674">3</td> <td data-bbox="639 573 823 674">E-Waste</td> <td data-bbox="823 573 983 674">0.5</td> <td data-bbox="983 573 1492 674">Collection, Storage, Transportation and Disposal as per E-waste manual.</td> </tr> <tr> <td data-bbox="563 674 639 775">4</td> <td data-bbox="639 674 823 775">Glass Waste</td> <td data-bbox="823 674 983 775">0.12</td> <td data-bbox="983 674 1492 775">Collection, Storage, Transportation and send to common TSDF site.</td> </tr> <tr> <td data-bbox="563 775 639 875">5</td> <td data-bbox="639 775 823 875">STP Sludge</td> <td data-bbox="823 775 983 875">30</td> <td data-bbox="983 775 1492 875">Collection, Storage and use as manure in gardening.</td> </tr> <tr> <td data-bbox="563 875 639 999">6</td> <td data-bbox="639 875 823 999">Dry Solid Waste</td> <td data-bbox="823 875 983 999">4.86</td> <td data-bbox="983 875 1492 999">Collection, Storage and Management as per Municipal Solid waste Management Rule-2016</td> </tr> <tr> <td data-bbox="563 999 639 1176">7</td> <td data-bbox="639 999 823 1176">Wet Solid Waste</td> <td data-bbox="823 999 983 1176">3.14</td> <td data-bbox="983 999 1492 1176">Collection, Storage, Conversion into compost and use as manure for gardening as per Municipal Solid waste Management Rule-2016</td> </tr> </tbody> </table> | Sr. No.                                   | Name of Waste  | Quantity<br>MT/<br>Annum | Final Disposal | 1 | Fly Ash   | 105                                       | Collection, Storage, Transportation and send to authorized fly ash Brick manufacturing unit.   | 2 | Paper waste | 0.6 | Collection, Storage, Transportation and send to registered vendor. | 3 | E-Waste | 0.5 | Collection, Storage, Transportation and Disposal as per E-waste manual. | 4 | Glass Waste | 0.12 | Collection, Storage, Transportation and send to common TSDF site. | 5 | STP Sludge | 30 | Collection, Storage and use as manure in gardening. | 6 | Dry Solid Waste | 4.86 | Collection, Storage and Management as per Municipal Solid waste Management Rule-2016 | 7 | Wet Solid Waste | 3.14 | Collection, Storage, Conversion into compost and use as manure for gardening as per Municipal Solid waste Management Rule-2016 |
|---|--|---|--|--------------------------|----------------|---|---|---|--|---|-------------|-----|--|---|---------|-----|---|---|-------------|------|---|---|------------|----|---|---|-----------------|------|--|---|-----------------|------|--|
| Sr. No.   | Name of Waste  | Quantity<br>MT/<br>Annum                  | Final Disposal   |                          |                |   |   |   |  |   |             |     |  |   |         |     |   |   |             |      |   |   |            |    |   |   |                 |      |  |   |                 |      |  |
| 1   | Fly Ash  | 105                                       | Collection, Storage, Transportation and send to authorized fly ash Brick manufacturing unit.   |                          |                |   |   |   |  |   |             |     |  |   |         |     |   |   |             |      |   |   |            |    |   |   |                 |      |  |   |                 |      |  |
| 2   | Paper waste  | 0.6                                       | Collection, Storage, Transportation and send to registered vendor.   |                          |                |   |   |   |  |   |             |     |  |   |         |     |   |   |             |      |   |   |            |    |   |   |                 |      |  |   |                 |      |  |
| 3   | E-Waste  | 0.5                                       | Collection, Storage, Transportation and Disposal as per E-waste manual.  |                          |                |   |   |   |  |   |             |     |  |   |         |     |   |   |             |      |   |   |            |    |   |   |                 |      |  |   |                 |      |  |
| 4   | Glass Waste  | 0.12                                      | Collection, Storage, Transportation and send to common TSDF site.  |                          |                |   |   |   |  |   |             |     |  |   |         |     |   |   |             |      |   |   |            |    |   |   |                 |      |  |   |                 |      |  |
| 5   | STP Sludge   | 30  | Collection, Storage and use as manure in gardening.  |                          |                |   |   |   |  |   |             |     |  |   |         |     |   |   |             |      |   |   |            |    |   |   |                 |      |  |   |                 |      |  |
| 6   | Dry Solid Waste  | 4.86                                      | Collection, Storage and Management as per Municipal Solid waste Management Rule-2016   |                          |                |   |   |   |  |   |             |     |  |   |         |     |   |   |             |      |   |   |            |    |   |   |                 |      |  |   |                 |      |  |
| 7   | Wet Solid Waste  | 3.14                                      | Collection, Storage, Conversion into compost and use as manure for gardening as per Municipal Solid waste Management Rule-2016   |                          |                |   |   |   |  |   |             |     |  |   |         |     |   |   |             |      |   |   |            |    |   |   |                 |      |  |   |                 |      |  |
| <p>Action plan to install Ammonia and Chlorine detector at work place</p> | <p>Unit would like to inform that 2 nos. of chlorine leak detectors will be procured and installed near Scrubber area. Unit will provide Chlorine hood provision for containment of Chlorine gas leakage into alkali scrubber in case there is Cl<sub>2</sub> leakage from valve. Unit will also provide emergency chlorine leakage control measures like chlorine kit, chlorine tonner hood vent connected to alkali scrubber. Unit will also install 2 nos. of Ammonia gas detectors for early warning of a leak in potential sources of emissions such as pump seals, compressor seals, process drains and vents.</p> <p>Additionally CEMS System will be installed for process gas emission stack and the same will be connected with GPCB server.</p>   |   |  |                          |                |   |   |   |  |   |             |     |  |   |         |     |   |   |             |      |   |   |            |    |   |   |                 |      |  |   |                 |      |  |
| <p>Emergency response plan to handle chemical spills and leakages.</p>    | <p>Emergency response plan for handling of chemical spills and leakages has been submitted.</p> <table border="1"> <thead> <tr> <th data-bbox="563 1682 639 1783">SR. NO.</th> <th data-bbox="639 1682 847 1783">ACTIVITY</th> <th data-bbox="847 1682 1015 1783">TYPE OF POSSIBLE HAZARD</th> <th data-bbox="1015 1682 1492 1783">PROCEDURES.</th> </tr> </thead> <tbody> <tr> <td data-bbox="563 1783 639 2047">1</td> <td data-bbox="639 1783 847 2047">HCL &amp; Sulfuric Acid Transportation by road tanker</td> <td data-bbox="847 1783 1015 2047">Leakage, Spillage, Chemical fumes release</td> <td data-bbox="1015 1783 1492 2047">Training will be provided to driver and cleaner regarding the safe driving, hazard of Flammable chemicals, emergency handling, use of SCBA sets.<br/>TREM card will keep with Tanker.<br/>Fire extinguishers will be kept with Tanker.</td> </tr> </tbody> </table>  | SR. NO.                                   | ACTIVITY   | TYPE OF POSSIBLE HAZARD  | PROCEDURES.    | 1 | HCL & Sulfuric Acid Transportation by road tanker | Leakage, Spillage, Chemical fumes release | Training will be provided to driver and cleaner regarding the safe driving, hazard of Flammable chemicals, emergency handling, use of SCBA sets.<br>TREM card will keep with Tanker.<br>Fire extinguishers will be kept with Tanker. |   |             |     |  |   |         |     |   |   |             |      |   |   |            |    |   |   |                 |      |  |   |                 |      |  |
| SR. NO.   | ACTIVITY   | TYPE OF POSSIBLE HAZARD                   | PROCEDURES.  |                          |                |   |   |   |  |   |             |     |  |   |         |     |   |   |             |      |   |   |            |    |   |   |                 |      |  |   |                 |      |  |
| 1   | HCL & Sulfuric Acid Transportation by road tanker  | Leakage, Spillage, Chemical fumes release | Training will be provided to driver and cleaner regarding the safe driving, hazard of Flammable chemicals, emergency handling, use of SCBA sets.<br>TREM card will keep with Tanker.<br>Fire extinguishers will be kept with Tanker. |                          |                |   |   |   |  |   |             |     |  |   |         |     |   |   |             |      |   |   |            |    |   |   |                 |      |  |   |                 |      |  |

|   |  |   |   |
|---|--|---|---|
|   |  |   | <p>Spark arrestor will be provided to Tanker exhaust.</p> <p>Instructions will be given not to stop road tankers in populated areas.</p> <p>Clear Hazard Identification symbol and emergency telephone number will be displayed as per HAZCHEM CODE.</p> <p>Appropriate PPEs will be kept with Tanker.</p>  |
| 2 | HCL & Sulfuric Acid Road tanker unloading at site. | Leakage, Spillage, Chemical fumes release | <p>Priority will be given to Tanker to immediately enter the storage premises at site and will not be kept waiting near the gate or the main road.</p> <p>Security person will check License, TREM CARD, Fire extinguisher condition, First Aid Box condition, required PPEs as per SOP laid down.</p> <p>Store officer will take sample as per sampling SOP from sampling point.</p> <p>After approval of QC/QA department unloading procedure will be allowed to start.</p> <p>Following precautions will be adopted during unloading:</p> <p>Permit to work and SOP will be followed before the process starts.</p> <p>Wheel stopper will be provided to Tanker at unloading platform.</p> <p>Static earthing will be provided to road tankers.</p> <p>Tanker unloading procedure will be followed according to check list and implemented.</p> <p>Flexible SS hose connection will be done at Tanker outlet line.</p> <p>Finally, the earthing connection and wheel stopper will be removed.</p> <p>Only daytime unloading will be permitted.</p> |
| 3 | HCL & Sulfuric Acid Storage tank safety            | Leakage, Spillage, Chemical fumes release | <p>Appropriate MOC storage tank will be provided as per IS code.</p> <p>Dyke wall will be provided to storage tank.</p> <p>Level transmitter will be provided with low-level high-level auto cut-off provision.</p> <p>Vent will be connected with flame arrestor.</p> <p>Fire hydrants monitor with foam attachment facilities will be provided.</p> <p>Dumping / Drain vessel/alternate vessel will be provided to collect dyke wall spillage material.</p> <p>FLP type pump will be provided.</p>  |

|   |  |  |  |  |
|---|--|--|--|--|
|   |  |  |  | Double static earthing will be provided to the storage tank.<br>Double Jumper clip will be provided to all Solvent handling pipeline flanges.  |
| 4 | HCL & Sulfuric Acid Transfer from storage tank to Day tank | Leakage, Spillage due to Line rupture, Flange Gasket failure, Chemical fumes release |  | SOP will be followed for chemical transfer from main tank to day tank. Double mechanical seal type FLP type pump will be provided. Double on / off switch will be provided at tank farm and process area near day tank. Pump auto cut off with day tank high level will be provided. A flame arrestor will be provided on day tank vent. Overflow will be provided for additional safety. NRV will be provided on pump discharge line. Double Jumper clip will be provided to all solvent handling pipelines. Double static earthing will be provided to day tank. |
| 5 | HCL & Sulfuric Acid Transfer from Day tank to reactor.     | Leakage, Spillage due to Line rupture, Flange Gasket failure, Chemical fumes release |  | Transfer through closed pumping system. The total quantity of day tank material will be charged into reactor at a time. NRV will be provided on day tank outlet line. Static earthing will be provided to storage tanks. Double Jumpers will be provided to pipeline flanges.  |

#### 24. Deliberations by the EAC

During deliberations, EAC discussed the following issues:

- PP submitted CPA Compliance of Ministry's OM dated 31.10.2019.
- PP submitted breakup cost of EMP i.e Capital and Recurring.

| Sr. No. | Unit        | Detail    | Capital Cost (Rs. In Lakhs) | Recurring Cost (Rs. In Lakhs/ Annum) | Detail   |
|---------|-------------|-----------|-----------------------------|--------------------------------------|--|
| 1       | Waste Water | ETP & STP | 35.7                        | 173                                  | Capital cost would include construction and installation of STP & ETP, Membership Charges of CMEE and recurring cost include chemical cost, electrical cost, manpower cost, maintenance charges and disposal cost of effluent in CMEE. |

|       |                        |  |       |       |   |
|-------|------------------------|--|-------|-------|---|
| 2     | Air                    | Air Pollution Control Measures   | 18.0  | 4.0   | Capital cost would include air pollution control devices and the recurring cost would include operation and maintenance of pollution control devices and stack emission monitoring.                                     |
| 3     | Hazardous Management   | Storage and membership   | 5.0   | 107.5 | Capital cost would include expense for providing storage area for hazardous waste and recurring cost would be for solid/ hazardous waste packing & its disposal   |
| 4     | Fire & Safety          | Fire Extinguishers, Fire hydrant line, water sprinkler                     | 18.0  | 6.0   | Installation of Fire Extinguishers, Fire hydrant line, water sprinkler and its operation and maintenance cost   |
| 5     | AWH Monitoring         | Monitoring of RO +APCM +Haz Management System through Outsourced           | 4     | 2.0   | Monitoring of STP+ ETP + APCM + Haz Management System through Outsourced as per CCA/EC conditions   |
| 6     | Green Belt Development | Greenbelt inside the premises  | 2.5   | 1.0   | Capital cost would include cost of plant species and labor cost, soil filling, soil dressing and recurring cost would include cost of maintenance of that green belt including cost of required water for plant growth. |
| 7     | Occupational Health    | First aid kits, OHC and tie up with Doctor                                 | 5     | 2.5   | Cost of establishing OHC, regular medical check-up of employees, Installation of fire hydrant line & extinguishers.   |
| 8     | CER activity           | As per list  | 24    | 12    | To Provide Solar power generation in Ankleshwar Village (In primary school), Treen Plantation in Kharchi Bhilwada, Gadkol Patiya, Jitali Village.   |
| 9     | Automation, DCS system | Temperature controller system in reactors, Cut-off switches, level sensors | 20    | 4     | Temperature controller system in reactors, Cut-off switches, level sensors  |
| TOTAL |                        |  | 132.2 | 312.0 |   |

- PP submitted the hazardous and non hazardous waste details

#### HAZARDOUS WASTE DETAILS:

| Sr. no. | Type/ Name of Hazardous waste            | Specific Source of generation (Name of the Activity, Product etc.) | Category and Schedule as per HW Rules. | Quantity (MT/ Annum) | Management of HW  |
|---------|--|--|--|----------------------|---|
| 1.      | Discarded Drums/Bags/ Containers/ Liners | Raw Material and Storage   | Sch-I/<br>33.1                         | 40.0                 | Collection, Storage, Transportation and sell to Register Re-processors after decontamination.         |
| 2.      | Used / Spent Oil                         | Equipment & Machinery  | Sch-I/<br>5.1                          | 0.3                  | Collection, Storage, Transportation and sell to registered recycler.                                  |
| 3.      | ETP Sludge                               | ETP  | Sch-I/<br>35.3                         | 40                   | Collection, Storage, Transportation and sent to common TSDF site.                                     |
| 4.      | Distillation Residue                     | Distillation   | Sch-I/<br>20.3                         | 343                  | Collection, Storage, Transportation and sent for co-processing in cement industries or CHWIF Site.    |
| 5.      | Spent Carbon                             | Process  | Sch-I/<br>28.2                         | 376.92               | Collection, Storage, Transportation and sent for co-processing in cement industries or to CHWIF site. |
| 6.      | Spent Catalyst                           | Process  | Sch-I/<br>28.3                         | 376.92               | Collection, Storage, Transportation and sent to registered regenerator.                               |
| 7.      | Inorganic Solid Waste                    | Process  | Sch-I/<br>28.1                         | 299.4                | Collection, Storage, Transportation and sent to common TSDF site.                                     |
| 8.      | Organic Waste                            | Process  | Sch-I/<br>28.1                         | 1284.96              | Collection, Storage, Transportation and sent for co-processing in cement industries or CHWIF site.    |
| 9.      | Hydrochloric Acid (30%)                  | Scrubber   | Sch-II/<br>B15                         | 1397                 | Collection, Storage and Reuse within premises or sell to end user under Rule-9 permission.            |
| 10.     | Sulphuric Acid (80%)                     | Process  | Sch-II/<br>B15                         | 519.94               |   |
| 11.     | Liq. Ammonia                             | Process & Scrubber   | Sch-I/<br>28.1                         | 579.94               |   |

|     |                         |          |                |        |   |
|-----|-------------------------|----------|----------------|--------|---|
| 12. | Sodium Bisulphite (25%) | Scrubber | Sch-II/<br>B36 | 265.82 | Collection, Storage, Transportation & sell to end user under Rule-9 permission. |
| 13. | Spent Solvent           | Process  | Sch-I/<br>28.6 | 10854  | Collection, Storage, in-house Distillation and Reuse within plant premises.     |
| 14. | Hydrogen Bromide        | Scrubber | Sch-I/<br>28.1 | 152.82 | Collection, Storage, Transportation & sell to end user under Rule-9 permission. |
| 15. | Sodium Bromide          | Scrubber | Sch-I/<br>28.1 | 292.54 |   |
| 16. | Ammonium Sulphate       | Scrubber | Sch-I/<br>28.1 | 242.50 |   |
| 17. | Sodium Nitrate          | Scrubber | Sch-I/<br>28.1 | 50.0   |   |
| 18. | Poly Aluminum Chloride  | Scrubber | Sch-I/<br>28.1 | 100.0  |   |

• **NON-HAZARDOUS WASTE DETAILS:**

| Sr. No. | Name of Waste   | Quantity<br>MT/ Annum | Final Disposal   |
|---------|-----------------|-----------------------|--|
| 1.      | Fly Ash         | 105                   | Collection, Storage, Transportation and send to authorized fly ash Brick manufacturing unit. |
| 2.      | Paper waste     | 0.6                   | Collection, Storage, Transportation and send to registered vendor.                           |
| 3.      | E-Waste         | 0.5                   | Collection, Storage, Transportation and Disposal as per E-waste manual.                      |
| 4.      | Glass Waste     | 0.12                  | Collection, Storage, Transportation and send to common TSDF site.                            |
| 5.      | STP Sludge      | 30                    | Collection, Storage and use as manure in gardening.  |
| 6.      | Dry Solid Waste | 4.86                  | Collection, Storage and Management as per Municipal Solid waste Management Rule-2016         |

|    |                 |      |  |
|----|-----------------|------|--|
| 7. | Wet Solid Waste | 3.14 | Collection, Storage, Conversion into compost and use as manure for gardening as per Municipal Solid waste Management Rule-2016 |
|----|-----------------|------|--|

- PP submitted the undertaking reporting that construction activities have been completed.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC constituted under the provisions of the EIA Notification, 2006 comprising expert members /domain experts in various fields, examined the proposal submitted by the PP in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.

The EAC noted that the PP has given an undertaking to the effect that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

The EAC noted that the EIA reports are in compliance with the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The EAC deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The EAC advised that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The EAC deliberated on the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during implementation also of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The expert members of the EAC found the proposal in order and recommended for grant of environmental clearance.

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as

mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

**25. The EAC, after detailed deliberations, recommended the project for the grant of environmental clearance, subject to the compliance of the terms and conditions as under, and general terms and conditions in Annexure-I:**

- (i) Multicyclone followed by bag filter and water scrubber along with stack of adequate height shall be provided to natural gas / agro waste/Briquette fired Thermic Fluid heater (4 lac KCal/Hr.) and Boiler 2TPH to achieve emission standards as per CPCB.
- (ii) Two stage water and alkali Scrubbers system shall be provided to control process emissions viz. Cl<sub>2</sub>, HCl, SO<sub>2</sub>, Br<sub>2</sub> and HBr. Two stage water and acid Scrubbers system shall be provided to control process emissions viz. NH<sub>3</sub>. Two stage alkali Scrubbers system shall be provided to control process emissions viz. NO<sub>x</sub>. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards
- (iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB. Odour management plan shall be implemented.
- (iv) Total fresh water requirement from GIDC water supply shall not exceed 43.83 m<sup>3</sup>/day.
- (v) NOC from the Concerned Local authority shall be obtained before start of the construction of plant and drawing of the GIDC water supply for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (vi) Industrial Effluent generation shall not exceed 28.2 KLD from process, boiler/cooling tower and washing activities and shall be primary treated to in –house ETP and then after it shall be sent to Common MEE Plant of M/s. BEIL, Ankleshwar. Treated effluent should be passed through holding tank and Online pH meter, flow meter and TOC analyzer should be installed. 2.5 KLD of domestic wastewatershall shall be treated in STP and treated effluent shall be re-used for horticulture purpose.
- (vii) The PP shall develop/maintain greenbelt over an area of 873.0 m<sup>2</sup> (i.e. approx 40.03 % of total area) shall be developed with the plant premises and 800 m<sup>2</sup> at Kosamdi Village which shall be additional 37.00 % of total plot area, preferably within one year of grant of EC. The number of saplings shall be planted and should be of sufficient height, preferably 6-ft. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- (viii) 25 KL X 1 No. underground RCC water storage tank shall be provided for rainwater harvesting. Stored rainwater shall be used in washing, cooling, domestic etc. after necessary pre-treatment.

- (ix) Monitoring of the compliance of EC conditions shall be submitted with third party audit every year.
- (x) As proposed, an amount of ₹ 24.0 Lakhs shall be allocated towards CER.
- (xi) A separate Environmental Management Cell (having qualified persons with Environmental Science/ Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage Environment Officer. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- (xii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is ₹ 132.2 Lakhs (Capital cost) and Rs. 312.0 Lakhs per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- (xiii) No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.
- (xiv) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- (xv) All the hazardous waste shall be managed and disposed as per the HWM Rules 2016. Hazardous waste such as Distillation Residue and Off Specification Products shall be either send to common incineration site or send for coprocessing. Solid waste shall be segregated into dry and wet garbage at site in accordance to the Solid Waste Management Rules, 2016. Wet waste shall be converted into compost and used as manure for greenbelt development.
- (xvi) The project proponent shall comply with the environment norms for 'synthetic organic chemicals' as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 608 (E), dated 21st July, 2010 under the provisions of the Environment (Protection) Rules, 1986.
- (xvii) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

The occupier of new as well as expansion projects shall be required to comply with the provisions of the MSHIC Rules, 1989 including notifying their activities or seeking site approval from the concerned authorities, to address operational safety aspects. In doing so, various schedule, particularly Schedule-5 of the said rules may be referred.

- (xviii) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.
- (xix) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.
- (xx) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xxi) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.
- (xxii) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (xxiii) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.
- (xxiv) As proposed, PP shall comply with the following mitigation measures as Per Ministry's Office Memorandum 31st October, 2019 regarding Projects Located in Critically Polluted Area

| Sr. No.           | Environment       | Mitigation Measures  | Compliance  |  |                  |                                 |   |
|-------------------|-------------------|--|---|--|------------------|---------------------------------|---|
| 1.                | Air               | (i) Stack emission levels should be stringent than the existing standards in terms of the identified critical pollutants | Unit has agreed to comply this condition and air emission level will be 80% from existing terms of the identified critical pollutants.<br>Details are given below slide |  |                  |                                 |   |
| FLUE GAS EMISSION |                   |  |   |  |                  |                                 |   |
| Sr. No.           | Stack Attached to | Stack Height in meter  | Fuel Consumption  | APCM   | Air Pollutants   | Emission Standard               | Emission Standard as per Critically Polluted Area |
| 01                | Boiler (2.0 TPH)  | 30   | Natural Gas: 3500 SCM/Day / Agro Waste: 4.5 MT/Day  | Adequate Stack Height/ Multi-Cyclone Separator with Bag Filter & | PM<br>SO2<br>NOX | 150 mg/Nm3<br>100 ppm<br>50 ppm | 120 mg/Nm3<br>80 ppm<br>40 ppm                    |

|    |                                   |    |                    |                       |  |  |  |
|----|-----------------------------------|----|--------------------|-----------------------|--|--|--|
| 02 | Thermic Fluid Heater (4 Lac KCal) |    |                    | Water Scrubber        |  |  |  |
| 03 | D.G. set (500 KVA)                | 12 | Diesel (50 Lit/Hr) | Adequate Stack Height |  |  |  |

Note: Natural Gas shall be used as primary fuel. During non-availability of Natural Gas and to avoid any disruptions during manufacturing activity, unit will use Agro Waste as fuel.

#### PROCESS GAS EMISSION

| Sr. No. | Stack Attached To                | Stack Height(m) from ground floor | Air Pollution Control System      | Parameter               | Emission Standard        | Emission Standard As Per Critically Polluted Area |
|---------|----------------------------------|-----------------------------------|-----------------------------------|-------------------------|--------------------------|---|
| 1.      | Reaction Vessel-1 (Chlorination) | 18                                | Two Stage Water + Alkali Scrubber | HCl                     | < 20 mg/Nm <sup>3</sup>  | < 16 mg/Nm <sup>3</sup>                           |
|         |                                  |                                   |                                   | SO <sub>2</sub>         | < 40 mg/Nm <sup>3</sup>  | < 32 mg/Nm <sup>3</sup>                           |
| 2.      | Reaction Vessel (Chlorination)   |                                   |                                   | Cl <sub>2</sub>         | < 9 mg/Nm <sup>3</sup>   | < 7.2 mg/Nm <sup>3</sup>                          |
|         |                                  |                                   | HCl                               | < 20 mg/Nm <sup>3</sup> | < 16 mg/Nm <sup>3</sup>  |   |
| 3.      | Reaction Vessel (Bromination)    |                                   |                                   | Br <sub>2</sub>         | < 5 mg/Nm <sup>3</sup>   | < 4 mg/Nm <sup>3</sup>                            |
|         |                                  |                                   |                                   | HBr                     | < 30 mg/Nm <sup>3</sup>  | < 24 mg/Nm <sup>3</sup>                           |
| 4.      | Reaction Vessel (Amination)      | 18                                | Two Stage Water + Acid Scrubber   | NH <sub>3</sub>         | < 175 mg/Nm <sup>3</sup> | < 140 mg/Nm <sup>3</sup>                          |
| 5.      | Reaction Vessel (Nitration)      | 18                                | Two Stage Alkali Scrubber         | NO <sub>x</sub>         | < 25 mg/Nm <sup>3</sup>  | < 20 mg/Nm <sup>3</sup>                           |

|     |  |  |
|-----|--|--|
| Air | (ii) CEMS may be installed in all large/ medium red category industries (air polluting) and connected to SPCB and CPCB server. | CEMS System will be installed for process gas emission stacks i.e. NO <sub>x</sub> , NH <sub>3</sub> , HCl, Cl <sub>2</sub> , Br <sub>2</sub> , HBr and SO <sub>2</sub> .  |
| Air | (iii) Effective fugitive emission control measures should be imposed in the process, transportation, packing, etc.             | Measures to control fugitive emissions. Airborne dust at all transfers operations/ points is controlled either by spraying water or providing enclosures. Adequate ventilation is provided. Preventive Maintenance System is prepared and implemented for Storage tanks and all process equipments including pipelines. Annual preventive Maintenance schedule is prepared and implemented to minimizing the fugitive emissions of VOCs. |

|     |   |  |
|-----|---|--|
|     |   | <p>Entire process is carried out in the closed reactors with proper maintenance of reactor and connecting assembly.</p> <p>Periodic monitoring of work area is carried out to check the fugitive emission.</p> <p>To eliminate chances of leakages from glands of pumps, mechanical seal is provided at all solvent pumps. Magnetic drive pump is installed for handling of Hazardous chemicals.</p> <p>Close feeding system is provided for centrifuges. Centrifuge and filtrate tank vents is connected to vent chillers. Agitated Nutsche filter will be used in place of centrifuge to control fugitive emission. Minimum number of flanges, joints and valves in pipelines.</p> <p>Fugitive emission over reactors, formulation areas, is collected through hoods and ducts by induced draft and controlled by scrubber/ dust collector.</p> <p>Dedicated scrubber is provided and used for fugitive emissions control.</p> <p>For dust emissions cyclones / bag filter is provided. Closed filter equipment like Agitated Nutch Filter (ANF) is used for filtration of Solvent base reaction and subsequently recovery of Solvent is also carried out in close using proper distillation column having primary &amp; secondary heat exchangers to minimize VOC emission.</p> |
| Air | (iv) Transportation of material by rail/ conveyor belt, wherever feasible.  | All the local raw material will be transported by road and imported materials will be transported by sea and then the material shall reach the site by road.   |
| Air | (v) Encourage use of cleaner fuels (pet coke/ furnace oil/ LSHS may be avoided).  | Unit has proposed to use Natural Gas or Agro Waste as fuel in flue gas stacks and to provide adequate Air Pollution Control Measures like Multi-cyclone Separator with Bag Filter & Water Scrubber to control the emission.  |
| Air | (vi) Best available technology may be used. For example, usage of EAF/ SAF/ IF in place of Cupola furnace. Usage of Supercritical technology in place of sub-critical technology. | Unit will adopt best available technology to reduce pollution and achieve maximum yield during production.   |
| Air | (vii) Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever feasible.  | Total 2181.0 m <sup>2</sup> land area is available at site; out of this 873.0 m <sup>2</sup> (i.e. approx 40.03 % of total area) will be developed as greenbelt and other forms of greenery.   |
| Air | (viii) Stipulation of green belt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.  | The company will further develop additional greenbelt of 800 m <sup>2</sup> at Kosamdi Village which will be additional 37.00 % of total plot area.  |
| Air | (ix) Assessment of carrying capacity of transportation load on roads inside the industrial premises. If the roads required to   | Unit will develop wide roads for carrying transportation load within the plant. Moreover the unit is located within notified industrial area of GIDC having well developed road infrastructure.  |

|    |                               |   |   |
|----|-------------------------------|---|---|
|    |                               | be widened, shall be prescribed as a condition.   |   |
| 2. | Water                         | (i) Reuse/ recycle of treated wastewater, wherever feasible.  | 2.5 KLD of domestic effluent will be treated in STP and treated effluent will be re-used for gardening. Industrial Effluent @ 28.2 KLD will be generated from process, boiler/cooling tower and washing activities and will be primary treated to in-house ETP and then after it will be sent to Common MEE Plant of M/s. BEIL, Ankleshwar. |
|    | Water                         | (ii) Continuous monitoring of effluent quality/ quantity in large and medium Red Category Industries (water polluting).                             | CEMS System is not applicable because our unit is small scale unit.   |
|    | Water                         | (iii) A detailed water harvesting plan may be submitted by the project proponent.   | For that, 25 KL X 1 No. underground RCC water storage tank will be provided for rainwater harvesting. Stored rainwater will be used in washing, cooling, domestic etc. after necessary pre-treatment.   |
|    | Water                         | (iv) Zero Liquid discharge wherever techno-economically feasible.   | 2.5 KLD of domestic effluent will be treated in STP and treated effluent will be re-used for gardening. Industrial Effluent @ 28.2 KLD will be generated from process, boiler/cooling tower and washing activities and will be primary treated to in-house ETP and then after it will be sent to Common MEE Plant of M/s. BEIL, Ankleshwar. |
|    | Water                         | (v) In case, domestic waste water generation is more than 10 KLD, the industry may install STP.   | 2.5 KLD of domestic effluent will be treated in STP and treated effluent will be re-used for gardening.   |
| 3. | Land                          | (i) Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever feasible.                        | Total 2181.0 m <sup>2</sup> land area is available at site; out of this 873.0 m <sup>2</sup> (i.e. approx 40.03 % of total area) will be developed as greenbelt and other forms of greenery.  |
|    | Land                          | (ii) Stipulation of green belt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.            | The company will further develop additional greenbelt of 800 m <sup>2</sup> at Kosamdi Village which will be additional 37.00 % of total plot area.   |
|    | Land                          | (iii) Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by SPCBs/ PCCs.                        | Unit will send Hazardous waste to approved TSDF site only. All the waste will be disposed of as per Solid and hazardous waste management.   |
|    | Land                          | (iv) More stringent norms for management of hazardous waste. The waste generated should be preferably utilized in co-processing.                    | Unit will send the hazardous waste for co-processing as far as possible.  |
| 4. | Other Conditions (Additional) | (i) Monitoring of compliance of EC conditions may be submitted with third party audit every year.   | Noted. Unit shall comply.   |
|    | Other Conditions (Additional) | (ii) The % of CER may be at least 1.5 times the slabs given in the OM dated 01.05.2018 for SPA and 2 times for CPA in case of Environment Clearance | Unit has proposed to contribute 24.0 Lakhs of the proposed project cost (4 times % of CER as per OM dated 01.05.2018) for socio economic development activities for 3 years.  |

**Agenda No. 71.7**

**Setting up pharma & intermediates manufacturing unit located at survey. No. 310/1/2/3, Village: Madhvas, Taluka: Kalol, Dist.: Panchmahal, Gujarat in favour of M/s Ornet Pharmaceuticals Private Limited- Amendment in Environmental Clearance-reg.**

1. The proposal is for amendment in the Environmental Clearance granted by the Ministry vide file no. J-11011/320/2018-IA-II(I), Dated: 27/02/2020 for the project setting up pharma & intermediates manufacturing unit located at survey. No. 310/1/2/3, Village: Madhvas, Taluka: Kalol, Dist.: Panchmahal, Gujarat in favour of M/s M/s. Ornet Pharmaceuticals Private Limited
2. The project proponent has requested for amendment in the EC with the details are as under;

| Sr. no. | Para of EC issued by MOEF & CC | Details As per EC   | To be revised/read as  | Justification/reasons  |
|---------|--------------------------------|---|--|--|
| 1       | 4                              | <p>Total land area is 6378.0 m<sup>2</sup> will be used for proposed new project. Industry will develop greenbelt in an area of 33 % i.e., 2110 m<sup>2</sup> out of total area of the project.</p> <p>The estimated project cost is Rs. 11.65 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 2.20 crores and the recurring cost (operation and maintenance) will be about Rs 8.07 crores per annum. Total Employment will be 102 persons as direct.</p> | <p>Total land area is 6378.0 m<sup>2</sup> will be used for proposed new project. Industry will develop greenbelt in an area of 33 % i.e., 2110 m<sup>2</sup> out of total area of the project.</p> <p>The estimated project cost is Rs. 20.35 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 1.10 crores and the recurring cost (operation and maintenance) will be about Rs 21.35 crores per annum. Total Employment will be 102 persons as direct.</p> | <p>Unit will do primary treatment and send treated effluent to Chhatral Environment Management System Pvt. Ltd -Common spray drying facility to maintain ZLD. Unit will not install ETP followed by RO and MEE.</p> <p>The capital cost of the project has increased due to increase cost of plant and machineries.</p> <p>There will be reduction in capital cost earmarked towards environmental pollution control measures due to following changes.</p> <ul style="list-style-type: none"> <li>• There will be reduction in boiler capacity from 3 TPH to 2 TPH.</li> <li>• There will be cost reduction due to non-installation of full-fledged inhouse ETP. There will be cost saving due to non-requirement of RO and MEE</li> <li>• There will be reduction of ETP sludge, MEE salt, spent carbon and stripper solvents in the hazardous waste generation.</li> <li>• There will be increase in recurring cost due to send treated water to common spray drying facility.</li> </ul> |
| 2       | 6                              | <p>Total water requirement is 222 m<sup>3</sup>/day of which fresh water requirement of 63 m<sup>3</sup>/day will be met from Ground water. Effluent of 162.0</p>   | <p>Total water requirement is 212 m<sup>3</sup>/day of which fresh water requirement of 198 m<sup>3</sup>/day will be met from Ground water. Effluent of 161</p>   | <p>Total water requirement will be decreased due to water requirement in boiler will be decrease.</p> <p>Fresh water consumption requirement will increase due to non-recycling of ETP water.</p> <p>Unit will maintain ZLD by sending treated effluent to Chhatral Environment</p>  |

|   |      |   |   |   |
|---|------|---|---|---|
|   |      | <p>m<sup>3</sup>/day quantity will be treated through ETP, RO and MEE and recycle back in the unit.</p> <p>The plant will be based on Zero Liquid discharge system.</p> <p>Power requirement will be 500 KVA and will be met from Madhya Gujarat Vij Company Limited (MGVCL).</p> <p>Unit will install DG sets as standby having capacity 600 KVA for using during power failure. Stack (height 9.0 m) will be provided as per CPCB norms to the proposed DG sets.</p> <p>The unit will install 3 TPH Boiler, Multi cyclone separator &amp; bag filter with a stack height of 11.0 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm<sup>3</sup>.</p> | <p>m<sup>3</sup>/day quantity will be treated in ETP.</p> <p>The plant will be based on Zero Liquid discharge system.</p> <p>Power requirement will be 500 KVA and will be met from Madhya Gujarat Vij Company Limited (MGVCL).</p> <p>Unit will install DG sets as standby having capacity 600 KVA for using during power failure. Stack (height 9.0 m) will be provided as per CPCB norms to the proposed DG sets.</p> <p>The unit will install 2 TPH Boiler, Multi cyclone separator + water scrubber with a stack height of 11.0 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm<sup>3</sup>.</p> | <p>Management system Pvt. Ltd -Common spray drying facility.</p> <p>Unit will install Multi cyclone separator + water scrubber for boiler having capacity of 2TPH. This is as per requirement of Gujarat Pollution Control Board.</p> |
| 4 | A-II | <p>As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.</p>   | <p>As already committed by the project proponent, Zero Liquid Discharge shall be ensured. Unit will send its effluent to Common Spray drying facility.</p>  | <p>Unit has membership of Chhatral Environment Management System Pvt. Ltd -Common spray drying facility. Unit will maintain ZLD.</p>  |
| 5 | viii | <p>Total freshwater requirement shall not exceed 63 cum/day, proposed to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.</p>  | <p>Total freshwater requirement shall not exceed 198 cum/day, proposed to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.</p>   | <p>Fresh water consumption requirement will increase due to non-recycling of ETP water.</p> <p>Unit will take Prior permission from the CGWA for 198 cum/day.</p>   |

**Deliberations by the EAC:**

1. PP informed that they will transport effluent through tanker more than 100 km for treatment in CETP. The Committee was of the view that it is not adequate to transport through tanker for such long distance for treatment of effluent in CETP from tracking and regulatory angle. It was suggested to explore the feasibility for pipeline transfer of effluent to nearby CETP or adopt ZLD.
2. It was also observed that project cost is going to increase double after amendment. Reasons to be provided for increase in project cost.
3. PP also proposed to change air pollution control device from multicyclone filter + bag filter to multicyclone filter + water scrubber. The Committee was not satisfied with the proposal for modification in the air pollution control device.
4. It was observed that fresh water requirement is also going to increase. It was advised to provide water balance chart and water conservation measures.

Accordingly, the proposal was deferred.

**Agenda No. 71.8**

**Proposed manufacturing of Technical Grade Pesticides and its intermediates with the capacity of 1100 MT/Year at Shed No.: A1-3618, GIDC Ankleshwar, District -Bharuch, Gujarat, India by M/s. Kashma Agro Industries.**

[ IA/GJ/IND3/446420/2023; IA-J-11011/233/2023-IA-II(I) ]

PP did not attend the meeting. Accordingly, the proposal was **deferred**.

**Agenda No. 71.9**

**Proposed Expansion of existing project for the manufacturing of Explosives and Defense products at village Chakdoh, Near Bazargaon, Tehsil Katol, District Nagpur- 440023, State Maharashtra by M/s. Solar Industries India Limited– Consideration of ToR (Violation category)**

[ Proposal No. IA/MH /IND3/454167/2023; File No. IA-J-11011/28/2017-IA-II(I) ]

1. The proposal is for the ToR for preparation of EIA/EMP for the Proposed Expansion of existing project for the manufacturing of Explosives and Defense products at village Chakdoh, Near Bazargaon, Tehsil Katol, District Nagpur- 440023, State Maharashtra by M/s. Solar Industries India Limited.
2. The project/activity is covered under Category 'A' of Item 5(f), Synthetic organic chemicals industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) as the project is located outside the Notified Industrial Area.

3. The PP applied for the ToR vide proposal No. **IA/MH/IND3/454167/2023** dated 5.12.2023 . The proposal is now placed in this 71<sup>st</sup> EAC Meeting held on 29<sup>th</sup> December, 2023 wherein the PP made an accredited Consultant, M/s. Anacon Laboratories Pvt. Ltd., Nagpur. [Accreditation number – NABET/EIA/2326/RA 0304 Valid up to 29<sup>th</sup> September 2026] a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported the product details as follows:

| Sr. No.                   | Products Name  | CAS No.    | UOM               | As per Existing EC | Proposed Addition | Total After Proposed Expansion |
|---------------------------|--|------------|-------------------|--------------------|-------------------|--------------------------------|
| <b>EC Products</b>        |  |            |                   |                    |                   |                                |
| 1                         | Slurry/ Emulsion Explosives  | NA         | MT/Yr.            | 156250             | 43750             | 200000                         |
| 2                         | Bulk Emulsion (SME)  | NA         | MT/Yr.            | 125000             | 00                | 125000                         |
| 3                         | Sorbian Monooleate (SMO)   | 1338-43-8  | MT/Yr.            | 9162               | 00                | 9162                           |
| 4                         | Poly Iso butylene Succinic anhydride (PIBSA)                           | NA         | MT/Yr.            | 6000               | 00                | 6000                           |
| 5                         | Lead Azide (Captive)   | 13424-46-9 | MT/Yr.            | 9                  | 6                 | 15                             |
| 6                         | Lead Styphnate (Captive)   | 15245-44-0 | MT/Yr.            | 3                  | 00                | 3                              |
| 7                         | ASA/AM/APA Mixing & Drying (Captive)                                   | NA         | MT/Yr.            | 12                 | 6                 | 18                             |
| 8                         | Penta Erythritol Tetra Nitrate (PETN)                                  | 78-11-5    | MT/Yr.            | 3000               | 4500              | 7500                           |
| 9                         | Cyclotetra Methylene Tetra Nitramine (HMX & HMX compounded Products) * | 2691-41-0  | MT/Yr.            | 300                | 1000              | 1300                           |
| 10                        | RDX & RDX compounded Products  | 121-82-4   | MT/Yr.            | 2900               | 00                | 2900                           |
| 11                        | Tri nitrotoluene (TNT) *   | 118-96-7   | MT/Yr.            | 3000               | 4000              | 7000                           |
| 12                        | Pentolite Cast Booster *   | NA         | MT/Yr.            | 3000               | 5000              | 8000                           |
| 13                        | Detonating Fuse  | NA         | Million Meters/Yr | 150                | 75                | 225                            |
| 14                        | Detonators #   | NA         | Million Nos./Yr.  | 125                | 25                | 150                            |
| <b>NON-EC Products \$</b> |  |            |                   |                    |                   |                                |

|    |  |                              |                       |      |      |       |
|----|--|------------------------------|-----------------------|------|------|-------|
| 1  | Calcium/Sodium Nitrate   | 7631-99-4/<br>13477-34-<br>4 | MT/Yr.                | 3600 | 6400 | 10000 |
| 2  | GI/CU Wire coating   | NA                           | Million<br>Nos./Yr.   | 90   | 60   | 150   |
| 3  | Filling/ Pressing of Filled<br>Shells (Captive)  | NA                           | Million<br>Nos./Yr.   | 63   | 127  | 190   |
| 4  | Shock Tube /NONEL Tube<br>(Captive & Finished)   | NA                           | Million<br>Meters/Yr. | 00   | 450  | 450   |
| 5  | Microchip (Captive &<br>Finished)  | NA                           | Million<br>Nos./Yr.   | 00   | 7.5  | 7.5   |
| *  | Applied for increase in Industrial license of HMX 1000 MTPA, TNT- 4000 MTPA, Pentolite Cast Booster 5000 MTPA & PETN – 4500 MTPA |                              |                       |      |      |       |
| #  | Applied in last EC proposal No. IA/MH/IND2/61877/2017 dated 22. 10.2018 however, missed to include in EC.                        |                              |                       |      |      |       |
| \$ | CTO has been obtained for item no. 1,2,3. & CTE obtained for item no. 4 & 5.   |                              |                       |      |      |       |

5. The PP reported that Ministry had issued EC earlier vide File No. J-11011/28/2017-IA II (I); dated 07.06.2019 to the existing project Modernization and Expansion of explosives and defence products manufacturing plant at Village Chakdoh, Tehsil Katol, District Nagpur (Maharashtra) in favour of M/s. Solar Industries India Limited.
6. The PP reported that as a part of compliance of earlier EC, SIIL has submitted six monthly reports. The latest status of project is already uploaded on the Parivesh portal where in exceedance of EC capacities of few products during 2021-22 & 2022-23 has been mentioned #. This was due to the market and National demand. The details of actual production vis a vis EC and CTO in a tabular format is as follows:

| Sr. No. | Name of the Product                | Units | As per EC Granted | As per CTO Granted | Actual Production during FY 2021-22                      | Actual Production during FY 2022-23                      |
|---------|------------------------------------|-------|-------------------|--------------------|--|--|
| 1       | <b>Slurry/Emulsion Explosives*</b> | TPA   | 156250            | 156250             | <b>167030.105</b><br>(Quantity Exceed-<br>10780.105 TPA) | <b>169451.392</b><br>(Quantity Exceed-<br>13201.392 TPA) |
| 2       | Bulk Emulsion (SME)                | TPA   | 125000            | 125000             | 14215.673  | 14951.789  |
| 3       | SMO                                | TPA   | 9162              | 9162               | 2923.6   | 3119.985   |
| 4       | PIBSA                              | TPA   | 6000              | 6000               | 914.035  | 1250.49  |
| 5       | <b>Lead Azide</b>                  | TPA   | 9                 | 9                  | <b>9.695</b>   | 8.964  |

|    |                                |   |      |      | (Quantity Exceed-<br>0.695 TPA)                   |  |
|----|--------------------------------|---|------|------|---|--|
| 6  | Lead Styphnate                 | TPA   | 3    | 3    | 0   | 0  |
| 7  | ASA Mixing & Drying            | TPA   | 12   | 12   | 10.010  | 8.024  |
| 8  | <b>PETN*</b>                   | TPA   | 3000 | 3000 | <b>3055.800</b><br>(Quantity Exceed-<br>55.8 TPA) | <b>3682.800</b><br>(Quantity Exceed-<br>682.8 TPA)   |
| 9  | HMX/HMX Compounded Products    | TPA   | 300  | 300  | 76.494  | 284.42   |
| 10 | RDX/RDX Compounded Products    | TPA   | 3000 | 3000 | 111.832   | 168.795  |
| 11 | TNT                            | TPA   | 3000 | 3000 | 1019.965  | 1071.495   |
| 12 | <b>Pentolite Cast Booster*</b> | TPA   | 3000 | 3000 | 2927.261  | <b>3924.475</b><br>(Quantity Exceed-<br>924.475 TPA) |
| 13 | Detonating Fuse                | Others:<br>Million<br>Meters<br>per<br>Annum  | 150  | 150  | 135.976   | 141.533  |
| 14 | Detonators                     | Others:<br>Million<br>Numbers<br>per<br>Annum | 0    | 125  | 60.063  | 61.305   |

# Amendment of Industrial Licence of Slurry/Emulsion Explosives was obtained from 156250 MT to 2,00,000 MT and that PETN and Cast Booster 3000 MT to 4500 MT. Prior permissions from PESO is obtained for enhanced quantity for both the financial years (2021-22 & 2022-23).

7. The PP reported that the Existing land area is 110.85 Ha., additional 106.75 Ha. will be required for proposed expansion. Thus, total land area after expansion will be 217.6 Ha. Out of total 217.6 Ha land, 129.63 Ha is non-forest land, and 87.97 Ha is covered under Forest land for which Forest Clearance has already been obtained from Department of Revenue & Forest; Government of Maharashtra vide Government Order No. FLD-3415/C.R.185/F-10, Mantralaya, Mumbai dated 15.04.2019.

8. The PP reported that the proposal does not involve Approval/Clearance under Forest (Conservation) Act, 1980, Wildlife (Protection) Act, 1972 and CRZ notification, 2011 as amended. There are **no** national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River/ water body Bor Nala is flowing at the distance of 1.0 km in SW direction.
9. The PP reported that the Existing water requirement is 997 KLD, proposed water requirement will be 1178 KLD. Total water requirement for plant activities after expansion will be 2175 KLD and will be met from Ground Water. CGWA have confirmed approval of ground water abstraction of 1600 KLD. For additional water requirement of 575 KLD, a separate NOC will be applied. Total capacity of ETPs is 360 KLD. Entire quantity of effluent (Existing & Proposed) of 346 KLD will be treated in different capacity of ETPs. Capacity of STP is 160 KLD. Domestic wastewater 145 KLD (existing & proposed) will be treated in existing STP. The plant will be based on Zero Liquid discharge system.
10. The PP reported that the Power requirement after expansion will be 4500 kVA Including existing 3100 kVA and will be met from Maharashtra State Electricity Distribution Corporation Limited (MSEDCL). Existing unit has 2 x 320 kVA, 2 x 380 KVA, 1 x 400 KVA, 4 x 500 KVA and 2 x 600 kVA capacity DG set, additionally 1 x 250 kVA, 2 x 500 kVA, and 1 x 600 kVA DG set are used as standby during power failure. Stack (8-meter height) will be provided as per CPCB norms to the proposed DG sets. Existing installed Solar Panel capacity is 3120 KW, which contributes ~ 20 to 22 % renewal energy.
11. Industry has already developed greenbelt in an area of 16.81% i.e. 36.58 Ha. out of total area of the project. Industry will develop greenbelt in an area of 35% i.e. 76.16 out of total area of the project. (Existing + Proposed).
12. The estimated project cost is Rs. 1229.58 Crores including existing investment of Rs. 692.737 Crores. and the Existing employment is 3191 nos. including construction and operation phase and total employment after expansion will be 4366 Nos.

13. **Deliberations by the EAC:**

The committee noted that an explosion incident has occurred at factory premises. After detailed deliberation the Committee desired the following additional information :

- i. Copy of any communication received from PESO regarding explosion incident and copy any response submitted by the PP.
- ii. Action taken or Inspection report of the Regional Officer, MPCB regarding explosion incident.
- iii. Internal Investigation Report and root cause analysis of explosion incident. Accident Investigation Report including possible causes of vulnerability established during the accident and mitigation plans.
- iv. Details of Police FIR - Copy of Panchnama.
- v. Details of District Administration Actions and compliances.
- vi. Details of actions taken by PESO and other agencies.
- vii. Details of compensation provided.
- viii. Safety audit report – (Last conducted)
- ix. Structural Stability certificate.
- x. Linkages of accident and Environment damages as per SOP shall be included in EIA.
- xi. Any Court case related to accident, if any.
- xii. Other relevant information, if any.

Accordingly, proposal was deferred for want of above additional information. Above all additional information shall be submitted online to the PARIVESH portal for further consideration by EAC.

**Agenda No. 71.10**

**Proposed Expansion & change in product mix of Existing Pesticides Manufacturing unit with production capacity from 461.5 TPA to 1122.0 TPA located at Plot No -E24, E24 Part, E-23/1, MIDC Lote - Parshuram, Tal-Khed, District -Ratnagiri, Maharashtra by M/s Godrej Agrovet Limited**

**[Proposal Number: IA/MH/IND3/451720/2023, File Number: J-11011/231/2003-IA-II(I)]**

1. The proposal is for the environmental clearance for the Proposed Expansion & change in product mix of Existing Pesticides Manufacturing unit with production capacity from 461.5 TPA to 1122.0 TPA located at Plot No -E24, E24 Part, E-23/1, MIDC Lote - Parshuram, Tal-Khed, District-Ratnagiri, Maharashtra.
2. The project/activity is covered under Category 'A' of 5(b) Pesticides & Pesticide Specific Intermediates (excluding formulations) of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended).
3. The ToR was granted by the Ministry, vide letter no. J-11011/231/2003-IA-II(I) dated 10.8.2023. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a Expansion case. The proposal is placed in this 71st EAC meeting on 29th December, 2023, wherein the PP along with accredited Consultant, M/s. Perfact Enviro Solutions Pvt. Ltd. (NABET Accreditation No. NABET/EIA/2225/RA0284 valid up to 26.11.2025] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:
4. The PP reported that the proposed Expansion shall be carried out within the existing plot area of 10,742 m<sup>2</sup> (1.0742 ha) and there will be no change in built up area as well, therefore the land use & land cover of the site will not be changed due to this proposed expansion. The land is owned by M/s Godrej Agrovet Ltd. The details of products to be manufactured are as follows:

| S. No.                 | Product Name                             | CAS No.         | Existing Capacity (TPA) | Proposed Capacity (TPA) | Total After Expansion (TPA) | End Use of the Product |
|------------------------|--|-----------------|-------------------------|-------------------------|-----------------------------|------------------------|
| <b>(A) EC Products</b> |  |                 |                         |                         |                             |                        |
| 1                      | GOD-HH001<br>Pyrithiobac Sodium<br>Tech. | 123342-<br>93-8 | 100.0                   | 350.0                   | 450.0                       | Herbicide              |
| 2                      | Homobrassinolide<br>(HBR)                | 80483-<br>89-2  | 1.5                     | 0.5                     | 2.0                         | Biostimulator          |
| 3                      | Bispyribac sodium<br>Technical           | 125401-<br>92-5 | 60.0                    | 40.0                    | 100.0                       | Herbicide              |

|   |   |                 |        |       |       |                              |
|---|---|-----------------|--------|-------|-------|------------------------------|
| 4   | Forchlorfenuron<br>Technical  | 68157-<br>60-8  | 40.0   | 60.0  | 100.0 | Plant Growth<br>Regulator    |
| 5   | Quizalofop-P-Ethyl<br>Technical   | 100646-<br>51-3 | 45.0   | 55.0  | 100.0 | Herbicide                    |
| 6   | Dimethomorph<br>Technical   | 110488-<br>70-5 | 60.0   | 0.0   | 60.0  | Fungicide                    |
| 7   | Metribuzin Technical  | 21087-<br>64-9  | 40.0   | 60.0  | 100.0 | Herbicide                    |
| 8   | Thiophanate Methyl<br>Technical   | 23564-<br>05-08 | 60.0   | 0.0   | 60.0  | Fungicide                    |
| 9   | Trifloxystrobin<br>Technical  | 141517-<br>21-7 | 45.0   | 55.0  | 100.0 | Fungicide                    |
| 10  | Mepiquat Chloride<br>Technical  | 141517-<br>21-7 | 10.0   | 40.0  | 50.0  | Plant<br>Growth<br>Regulator |
| Sub-Total                                 | 461.5   | 660.5           | 1122.0 |       |       |                              |
| (B)<br>Formulations<br>Non-EC<br>Products |   |                 |        |       |       |                              |
| 11  | Hitweed Pyrithiobac<br>Sodium 10%   | -               | 10.0   | 0.0   | 10.0  | Herbicide                    |
| 12  | Repacking of<br>Quizalofop-p-ethyl  | -               | 480.0  | 0.0   | 480.0 | Herbicide                    |
| 13  | Dilute Caustic LYE<br>27%   | -               | 360.0  | 0.0   | 360.0 | -                            |
| 14  | Bispyribac Sodium<br>formulation  | 125401-<br>92-5 | 100.0  | 100.0 | 200.0 | Herbicide                    |
| 15  | Florchlorfenuron<br>Formulation   | 68157-<br>60-8  | 10.12  | 39.88 | 50.0  | Plant<br>Growth<br>Regulator |
| 16  | Achook/Nimin  | -               | 36.0   | 0.0   | 36.0  | Neem based<br>pesticide      |
| 17  | BUMPER/BOUNTEE  | -               | 12.0   | 13.0  | 25.0  | Plant<br>Growth<br>Regulator |
| 18  | Homobrassinolide<br>PGR Like Super<br>shakti, Dimore<br>Combine, Double, 1%<br>Homobrassinolide | -               | 12.0   | 13.0  | 25.0  | Plant<br>Growth<br>Regulator |
| 19  | Agroneem  | -               | 190.0  | 0.0   | 190.0 | Neem based<br>pesticide      |
| 20  | Liquid Vipul, Vipul<br>Granules, Suruchi,<br>Ruchira  | -               | 36.0   | 0.0   | 36.0  | Plant<br>Growth<br>Regulator |
| 21  | Hitweed Pyrithiobac<br>Sodium Formulation   | -               | 100.0  | 200.0 | 300.0 | Herbicide                    |

|           |          |         |          |             |             |                          |
|-----------|----------|---------|----------|-------------|-------------|--------------------------|
| 22        | NaSH     | -       | 0.00     | 300 kl/year | 300 kl/year | Paint and Paper Industry |
| Sub-Total | 1,346.10 | 665.9   | 2,012.00 |             |             |                          |
| Total     | 1,807.6  | 1,326.4 | 3,134.00 |             |             |                          |

5. The PP reported that there is no violation case as per the Notification No. S.O. 804(E) dated 14.03.2017 and no direction is issued under E (P) Act/Air Act/Water Act.
6. The PP reported that the earlier EC was granted vide Letter No- F.No. J11011/231/2003-IA-II(I) on 09.03.2021 for manufacturing of pesticide products total capacity 1006.025 TPA. The project has already been granted the latest Consent to Operate (CTO) vide letter No. 0000143466/CO/2302001259 by MPCB dated 16.02.2023.
7. The PP reported that the Certified Compliance report for EC Identification NoF.No.J11011/231/2003-IA-II(I) dated 09.03.2021 has been obtained from Regional Office of MoEF&CC, vide letter No. F.No.-1295/RON/2021/NGP/12362 dated 23.10.2023.
8. Two of the EC conditions are observed to be Partially Complied by the PP: Specific Condition No. X & XXVI: Density of plantation needs to be improved One of the EC conditions is observed to be not Complied by the PP Copy of the clearance letter has not been sent to the concerned Gram Panchayat.
9. The PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site.. There are 5 schedule - I Species found in the study area i.e. Crocodylus palustris, Python molurus, Varanus bengalensis, Buceros bicornis, Pavo cristatus. is evidenced in the Buffer zone within a 10 km radius. Conservation Plan has been approved
10. The PP reported that the Ambient air quality results for primary pollutants and specific pollutants as under show that the quality of air in the study area conforms to the NAAQS, 2009. Core zone: The mean value of PM10 at two core zone locations ranges from (48.14 to 74.98 µg/m<sup>3</sup>) & PM2.5 ranges from (13.84- 24.53 µg/m<sup>3</sup>), SO<sub>2</sub> ranges from (3.89- 8.94 µg/m<sup>3</sup>), NO<sub>2</sub> ranges from (10.52 - 21.39 µg/m<sup>3</sup>) & CO (0.29 - 0.53 mg/m<sup>3</sup>) and VOC (0.14 - 0.28 µg/m<sup>3</sup>) which are within the limits of National Ambient Air Quality Standards (NAAQS). Buffer zone: The mean value of PM10 ranges from (48.93- 89.61 µg/m<sup>3</sup>), PM2.5 ranges from (14.85- 29.97 µg/m<sup>3</sup>), SO<sub>2</sub> ranges from (4.42-23.69 µg/m<sup>3</sup>), NO<sub>2</sub> ranges from (11.42 - 28.05 µg/m<sup>3</sup>), CO ranges from (0.31-0.68 mg/m<sup>3</sup>) & VOC ranges from (0.15- 0.36) which are within the limits of National Ambient Air Quality Standards (NAAQS). As per the Air Quality Index by CPCB the air quality of the buffer zone is found to be Satisfactory during the period - March 2023 to May 2023.
11. The PP reported that the Total Water Requirement for this pesticide manufacturing unit after the expansion will be 104.1 KLD out of which fresh water requirement will be 85.9 KLD, treated water will be 14.6 KLD and treated sewage will be 3.6 KLD. Fresh water will be used @ 4.5 KLD for domestic purposes, 7.3 KLD will be used in Industrial processes, 50.2 KLD in Cooling tower, 11.5 KLD will be used in Boiler, 3.4 KLD will be used in Gardening, 5 KLD will be used in Washing & rest 4 KLD of water will be used in scrubbing. The treated water of 14.6 KLD will be used in Cooling tower. 3.6 KLD of Treated sewage will be used in Gardening. After expansion the total wastewater generated will be

31.2 KLD out of which 6 KLD will be Strong Steam & 21.2 KLD will be weak stream and 4 KLD will be sewage water. The 21.2 KLD Weak Stream will be sent to ETP which was further sent to CETP & RO System. Then 2.2 KLD RO Rejected & 6 KLD Strong Steam will be sent to MEE System and 5.3 KLD (from MEE System) & 9.3 KLD (RO Permeate) will be used as treated water for reuse.

12. The Existing Power requirement 400 kVA will be increased to 600 kVA, and Will continued to be sourced from Maharashtra State Electricity Limited (MSEDCL). DG sets of 1 x 200 kVA acoustic enclosures are being used as standby during power failure with maximum stack height of 10 m as per CPCB norms.

### 13. Details of Process Emissions Generation and its Management:

| Stack ID   | Source of Emission with Capacity | Stack Height (m) | Stack Dia (m) | Type of Fuel | Quantity of Fuel | APCM                  | Type of Emissions i.e, "Air Pollutants with Permissible Limits"                                      |
|--|----------------------------------|------------------|---------------|--------------|------------------|-----------------------|--|
| Existing   |                                  |                  |               |              |                  |                       |  |
| 01   | DG Set (1x200 kVA)               | 10               | 0.20          | HSD          | 22 lit/hrs.      | Adequate Stack Height | PM- 150 mg/Nm <sup>3</sup><br>SO <sub>2</sub> - 100 mg/Nm <sup>3</sup><br>NOX- 50 mg/Nm <sup>3</sup> |
| 02   | TFH (1,00,000 kcal/hr)           | 18               | 0.30          | Natural gas  | 22 SCM/hrs.      | Adequate Stack Height | PM- 150 mg/Nm <sup>3</sup><br>SO <sub>2</sub> - 100 mg/Nm <sup>3</sup><br>NOX- 50 mg/Nm <sup>3</sup> |
| 03   | Boiler for Process (1 x 0.6 TPH) | 21               | 0.25          | Natural gas  | 35 SCM/hrs.      | Adequate Stack Height | PM- 150 mg/Nm <sup>3</sup><br>SO <sub>2</sub> - 100 mg/Nm <sup>3</sup><br>NOX- 50 mg/Nm <sup>3</sup> |
| 04   | Boiler for MEE (1 x 0.6 TPH)     | 21               | 0.25          | Natural gas  | 35 SCM/hrs.      | Adequate Stack Height | PM- 150 mg/Nm <sup>3</sup><br>SO <sub>2</sub> - 100 mg/Nm <sup>3</sup><br>NOX- 50 mg/Nm <sup>3</sup> |
| Proposed   |                                  |                  |               |              |                  |                       |  |
| There will not be addition of any flue gas stacks for proposed expansion |                                  |                  |               |              |                  |                       |  |

| Stack ID | Source of Emission | Stack Height (m) | APCM                                  | Permissible limits |
|----------|--------------------|------------------|---------------------------------------|--------------------|
| Existing |                    |                  |                                       |                    |
| 1        | Process Reactor    | 15               | 2 stage scrubbers<br>C.S.Lye Solution | H <sub>2</sub> S   |
| 2        | Process Reactor    | 15               | C.S.Lye Solution                      | CO <sub>2</sub>    |
| Proposed |                    |                  |                                       |                    |
| 1        | Process Reactor    | 15               | 2 stage scrubbers<br>C.S.Lye Solution | H <sub>2</sub> S   |

### 14. Details of Solid Waste/ Hazardous Waste Generation and its Management:

| Source         | Type of Waste | Quantity (TPA) | Treatment Method            |
|----------------|---------------|----------------|-----------------------------|
| Domestic Waste | Solid Waste   | 1.19           | Existing: Authorized Vendor |

|                                    |   |      |   |
|------------------------------------|---|------|---|
|                                    | (Biodegradable)                                     |      | Proposed: Treatment in inhouse organic waste convertor (OWC) and use manure for horticulture development purposes in the premises |
| Office and related operations      | Recyclable Waste (Plastic, paper, wood, glass, etc) | 0.79 | Send to Authorized Recyclers  |
| Sludge from Sewage treatment plant | STP Sludge  | 0.90 | Use as manure for horticulture development purposes in the premises   |
|                                    | Total   | 2.88 |   |

**HAZARDOUS WASTE MANAGEMENT (PROCESS)**

| S. No. | Waste   | Category (as per HWM Rules, 2016) | Quantity (Unit-TPA) |          |                       | Disposal  |
|--------|---|-----------------------------------|---------------------|----------|-----------------------|---|
|        |   |                                   | Existing            | Proposed | Total After Expansion |   |
| 1      | Process waste or residues (Herbicides Residues and waste)                       | 29.1                              | 54.00               | 77       | 131.28                | Incineration & CHWTSDF  |
| 2      | Chemical sludge from wastewater treatment                                       | 35.3                              | 13.20               | 36       | 49.00                 | CHWTSDF   |
| 3      | Empty barrels /containers /liners contaminated with hazardous chemicals /wastes | 33.1                              | 63.65               | 30       | 93.65                 | Recycler /sale to authorized party with Rule 9 registration /CHWTSDF  |
| 4      | Process Residue and waste (Process Organic Residue)                             | 28.1                              | 283.79              | 508      | 791.29                | Incineration & CHWTSDF  |
| 5      | Distillation Residue from Solvent Recovery unit (Solvent Distillation Residue)  | 20.3                              | 101.61              | 145      | 247.03                | Co-Processing in Cement Manufacturing/ Incineration facility/ CHWTSDF |
| 6      | Process Residue and wastes (Silica)   | 28.1                              | 67.81               | 97       | 164.81                | Landfill & CHWTSDF  |
| 7      | Concentration or evaporation residue (MEE Salts)                                | 37.3                              | 174.42              | 250      | 424.42                | Landfill & CHWTSDF  |
| 8      | Concentration or evaporation residue (Organic Distillate from MEE Stripper)     | 37.3                              | 75.60               | 108      | 183.60                | Co-Processing in Cement Manufacturing/ Incineration facility/ CHWTSDF |
| 9      | Used or spent oil   | 5.1                               | 0.0050              | 0.995    | 1.00                  | Recycler having registration under Rule 9 of HoWM from CPCB/ SPCB     |
| 10     | Process Residue and waste (Chlorides Of Calcium & Sodium)                       | 28.1                              | 9.00                | 13       | 22.00                 | CHWTSDF   |

## Non Hazardous Waste

## Battery Waste

| Particulars | Unit | Existing | Proposed | Total | Mode of disposal |
|-------------|------|----------|----------|-------|------------------|
|-------------|------|----------|----------|-------|------------------|

|                   |     |      |      |      |  |
|-------------------|-----|------|------|------|--|
| Lead Acid Battery | TPA | 0.68 | 0.68 | 1.36 | Returned to battery manufacture through authorized dealer on buyback procurement |
|-------------------|-----|------|------|------|--|

## E-Waste

| Particulars      | Unit | Existing | Proposed | Total | Mode of disposal     |
|------------------|------|----------|----------|-------|----------------------|
| Electronic items | TPA  | 0.72     | 0.72     | 1.44  | Authorized Recyclers |

## BioMedical Waste

| Particulars    | Unit | Existing | Proposed | Total | Mode of disposal         |
|----------------|------|----------|----------|-------|--------------------------|
| Waste from OHC | TPA  | 0.36     | 0.36     | 0.72  | will be given to CBMWTDF |

15. The Budget earmarked towards the Environment Management Plan (EMP) is ₹ 179 lakhs (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 53 lakhs per Annum. Industry proposes to allocate Rs. 10 Lakh towards CER.
16. Green belt/greenery has been developed and being maintained along most of the periphery of the project area as well as along roads. Total 3571.32 m<sup>2</sup> (33.25%) of green area will remain unchanged after expansion with a total No. of 714 trees Green belt/greenery has been developed and being maintained along most of the periphery of the project area as well as along roads. Total 3571.32 m<sup>2</sup> (33.25%) of green area will remain unchanged after expansion with a total Nos. of 892 trees. 350 Nos. of trees are already planted. The Committee noted that plant density in the existing premises is less as mentioned in the CCR of IRO. It was suggested to plant more tree in order to increase the plant density. Accordingly, PP submit the action plan to increase the plant density within the existing greenbelt area. PP proposed that remaining 542 Nos. of trees will be planted in the next 3 months i.e., by April 2024 before the onset of monsoon. Considering 90% survival rate, 602 Nos. of saplings will be planted.
17. The PP reported that the proposed project is exempted from Public Consultation as per clause 7 (i) (iii) stage (3)(i)(b) of EIA notification 2006 (as per OM J-11011/321/2016-IA. II(I) dated 27th April 2018). As the unit exists in the Notified Industrial Area of Maharashtra Industrial Development Corporation (MIDC), Lote Parshuram.
18. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environment officials for the functioning of EMC.
19. The PP reported that Company aims to offset 961.2 metric tonnes of CO<sub>2</sub> equivalent annually, which is 16.2% of the total emissions, by cultivating this green space within the plant's premises each year of operation. Consequently, the net residual CO<sub>2</sub> emissions at full capacity are expected to be 6156.17 tonnes of CO<sub>2</sub> equivalent per annum, or approximately 1.97 tonnes of CO<sub>2</sub> equivalent per tonne of production.
20. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.

21. The existing project cost is INR 23.47 Crores and the estimated project cost after expansion is INR 30.47 Crores Existing project provides 30 Nos employment contributing to the Operation phase and additional employment will be 33 Nos. contributing (23 Nos Construction phase & 10 Nos Operation Phase). So, total employment after expansion will be 63 Nos.

## 22. Deliberations by the EAC:

During the deliberation EAC discussed the following issues:

- PP submitted the revised water balance with less wastewater discharge and increased reuse of treated water. As per Water balance report, total water requirement will be increased from 51.9 to 104.1 KLD after expansion. Out of 104.1 KLD, fresh water requirement from MIDC water supply will be 85.9 KLD and remaining 18.2 KLD will be sourced from recycled water. Total wastewater generation after expansion will be increased from 13.4 KLD to 31.2 KLD. Out of 31.2 KLD, industrial effluent will be 27.2 KLD and sewage generation will be 4 KLD. Industrial effluent will be segregated into high TDS/COD effluent stream and low TDS/COD effluent stream. High TDS/COD effluent stream will be treated in MEE and MEE salt will be disposed of in TSDF. Low TDS/COD effluent stream will be sent to ETP followed by RO. 8 KLD Treated effluent from ETP will be discharged to CETP and RO permeate will be recycled for manufacturing process/cooling tower make up water/ boiler etc. Sewage will be treated in STP and STP treated water will be recycled/reused for horticulture purpose.
- PP committed to install 25 KLD rain water collection pit and rain water will be used to meet fresh water demand during monsoon.
- PP submitted the revised Updated Solid Waste details and Hazardous Waste details

| Source                             | Type of Waste                                       | Quantity (TPA) | Treatment Method   |
|------------------------------------|---|----------------|--|
| Domestic Waste                     | Solid Waste (Biodegradable)                         | 1.19           | Existing: Authorized Vendor<br>Proposed: Treatment in inhouse organic waste convertor (OWC) and use manure for horticulture development purposes in the premises |
| Office and related operations      | Recyclable Waste (Plastic, paper, wood, glass, etc) | 0.79           | Send to Authorized Recyclers   |
| Sludge from Sewage treatment plant | STP Sludge  | 0.90           | Use as manure for horticulture development purposes in the premises  |
|                                    | Total   | 2.88           |  |

### • Details of Hazardous Waste Management

| HAZARDOUS WASTE MANAGEMENT (PROCESS) |  |  |                     |
|--------------------------------------|--|--|---------------------|
| S.                                   |  |  | Quantity (Unit-TPA) |
|                                      |  |  |                     |

| No. | Waste   | Category (as per HWM Rules, 2016) | Existing | Proposed | Total After Expansion | Disposal   |
|-----|---|-----------------------------------|----------|----------|-----------------------|--|
| 1   | Process waste or residues (Herbicides Residues and waste)                       | 29.1                              | 54.00    | 77       | 131.28                | Incineration & CHWTSDF   |
| 2   | Chemical sludge from wastewater Treatment                                       | 35.3                              | 13.20    | 36       | 49.00                 | CHWTSDF  |
| 3   | Empty barrels /containers /liners contaminated with hazardous chemicals /wastes | 33.1                              | 63.65    | 30       | 93.65                 | Recycler /sale to authorized party with Rule 9 registration /CHWTSDF |
| 4   | Process Residue and waste (Process Organic Residue)                             | 28.1                              | 283.79   | 508      | 791.29                | Incineration & CHWTSDF   |
| 5   | Distillation Residue from Solvent Recovery unit (Solvent Distillation Residue)  | 20.3                              | 101.61   | 145      | 247.03                | Co-Processing in Cement Manufacturing/ Incineration                  |

| HAZARDOUS WASTE MANAGEMENT (PROCESS) |   |                                   |                     |          |                       |  |
|--------------------------------------|---|-----------------------------------|---------------------|----------|-----------------------|--|
| S. No.                               | Waste   | Category (as per HWM Rules, 2016) | Quantity (Unit-TPA) |          |                       | Disposal   |
|                                      |   |                                   | Existing            | Proposed | Total After Expansion |  |
|                                      |   |                                   |                     |          |                       | facility/<br>CHWTSDf   |
| 6                                    | Process Residue and wastes (Silica)   | 28.1                              | 67.81               | 97       | 164.81                | Landfill & CHWTSDf   |
| 7                                    | Concentration or evaporation residue (MEE Salts)                            | 37.3                              | 174.42              | 250      | 424.42                | Landfill & CHWTSDf   |
| 8                                    | Concentration or evaporation residue (Organic Distillate from MEE Stripper) | 37.3                              | 75.60               | 108      | 183.60                | Co-Processing in Cement Manufacturing/ Incineration facility/<br>CHWTSDf |
| 9                                    | Used or spent oil   | 5.1                               | 0.0050              | 0.995    | 1.00                  | Recycler having registration under Rule 9 of HoWM from CPCB/ SPCB        |
| 10                                   | Process Residue and waste (Chlorides Of Calcium & Sodium)                   | 28.1                              | 9.00                | 13       | 22.00                 | CHWTSDf  |

PP submitted the Greenbelt details with the name and number of saplings & total budget for the same along with the undertaking.

Existing greenbelt is developed in 3571.32 m<sup>2</sup> of area within premises. (33.25 % of the plot area)

Number of Trees required =  $3571.32/4 \text{ m}^2 = 892$  (considering 2500 tree per 1 ha as tree density)

Number of trees already planted at site = 350

No. of Trees to be planted = 542

Considering the survival rate of 90% in this area, 602 saplings shall be planted in the next 3 months. Moreover, in addition to the same, plantation shall be undertaken in the adjacent newly built MIDC road alongside M/s Godrej Agrovet site boundary. Hence completion of plantation alongside MIDC road shall be done within the next 3 months

• **PP submitted the Breakup of EMP cost :**

| Capital Expenditure in Lakhs |                          |                |                |                             |
|------------------------------|--------------------------|----------------|----------------|-----------------------------|
| Sr. No.                      | Particulars              | Existing (INR) | Proposed (INR) | Total After Expansion (INR) |
| 1                            | Air management           | 15             | 12             | 27                          |
| 2                            | Wastewater management    | 50             | 85             | 135                         |
| 3                            | Landscaping / Plantation | 3              | 3              | 6                           |
| 4                            | Rainwater Collection     | 2              | 1              | 3                           |
| 5                            | Misc.(Health & Safety)   | 4              | 4              | 8                           |
|                              | Total                    | 74             | 105            | 179                         |

| Recurring Expenditure in lakhs per annum |                              |                |                |                             |
|--|------------------------------|----------------|----------------|-----------------------------|
| Sr. No.                                  | Particulars                  | Existing (INR) | Proposed (INR) | Total After Expansion (INR) |
| 1  | Air Management               | 4              | 5              | 9                           |
| 2  | Solid Waste Management       | 5              | 4              | 9                           |
| 3  | Wastewater Management        | 10             | 8              | 18                          |
| 4  | Landscaping/ Plantation      | 3              | 2              | 5                           |
| 5  | Rain Water Harvesting        | 0.5            | 0.5            | 1                           |
| 6  | Environment Monitoring       | 3              | 2              | 5                           |
| 7  | Occupational Health & Safety | 4              | 2              | 6                           |
|  | Total                        | 29.5           | 23.5           | 53                          |

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC constituted under the provisions of the EIA Notification, 2006 comprising expert members /domain experts in various fields, examined the proposal submitted by the PP in desired

format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.

The EAC noted that the PP has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

The EAC noted that the EIA reports are in compliance with the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The EAC deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The EAC advised that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The EAC deliberated on the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during the implementation also of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The expert members of the EAC found the proposal in order and recommended for grant of environmental clearance.

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

**23. The EAC, after detailed deliberations, recommended the project for the grant of environmental clearance, subject to the compliance of the terms and conditions as under, and general terms and conditions in Annexure-I:**

- (i) Stack of adequate height shall be provided with the gas fired (2x0.6 TPH) boiler and 1 Lakh Kcal/hr thermic fluid heater as per CPCB norms.
- (ii) Two stage water followed by alkali Scrubber system alongwith adequate stack height shall be provided to control process emissions viz. H<sub>2</sub>S and CO<sub>2</sub>. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- (iii) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.
- (iv) Total fresh water requirement from MIDC water supply shall not exceed 85.9 KLD.
- (v) NOC from the Concerned Local authority shall be obtained before start of the construction of plant and drawing of the MIDC water supply for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (vi) The the total wastewater generated shall not exceed 31.2 KLD out of which 6 KLD shall will be Strong Steam & 21.2 KLD shall be weak stream and 4 KLD shall be sewage water. The 21.2 KLD Weak Stream shall will be sent to ETP which was further sent to CETP & RO System. Then 2.2 KLD RO Rejected & 6 KLD Strong Steam shall be sent to MEE System and 5.3 KLD (from MEE System) & 9.3 KLD (RO Permeate) shall be used as treated water for reuse.
- (vii) Total wastewater generation after expansion shall not exceed 31.2 KLD. Out of 31.2 KLD, industrial effluent will be 27.2 KLD and sewage generation will be 4 KLD. Industrial effluent shall be segregated into high TDS/COD effluent stream and low TDS/COD effluent stream. High TDS/COD effluent stream will be treated in MEE and MEE salt will be disposed of in TSDF. Low TDS/COD effluent stream will be will be sent to ETP followed by RO. 8 KLD Treated effluent from ETP shall be discharged to CETP and RO

permeate shall be recycled for manufacturing process/cooling tower make up water/ boiler etc. Sewage will be treated in STP and STP treated water shall be recycled/reused for horticulture purpose. Treated effluent should be passed through holding tank. Online pH meter, flow meter and TOC analyzer should be installed. Efforts shall be also made to explore the possibility of recycling/reuse of the treated effluent.

- (viii) The PP shall develop greenbelt at least 5-10 m width over an area of 33% of the total plot area. The 602 additional tree saplings shall be planted and should be of sufficient height, preferably 6-ft within 6 months of grant of EC in order to densify the existing greenbelt. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- (ix) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage Environment Officials. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- (x) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is ₹ 179 Lakhs (Capital cost) and ₹53 Lakhs per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

- (xi) Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii) No banned Pesticides shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.
- (xiii) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- (xiv) The project proponent shall comply with the environment norms for 'Pesticide industry' as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 446 (E), dated 13.6.2011 under the provisions of the Environment (Protection) Rules, 1986.
- (xv) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.
- (xvi) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.
- (xvii) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.
- (xviii) All the hazardous waste shall be managed and disposed as per the HWM Rules 2016. Hazardous waste such as Distillation Residue and Off Specification Products shall be either send to common incineration site or send for coprocessing. Solid waste shall be segregated into dry and wet garbage at site in accordance to the Solid Waste Management Rules, 2016. Wet waste shall be converted into compost and used as manure for greenbelt development.

- (xix) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xx) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (xxi) The storm water from the roof top shall be channelized through pipes to the 25 KLD storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
- (xxii) The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (xxiii) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.
- (xxiv) PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

### **Agenda No. 71.11**

**Proposed expansion of synthetic organic chemicals (from 700 MT/month to 6800 MT/month) manufacturing plant within Existing Unit of. (Unit-II) at Gut No. 398/1&2, 459/1, At & Po: Dinkarpada, Kudus, Ta: Wada, Dist: Palghar, Maharashtra by M/s. Orson Resins and Coatings Pvt. Ltd - Terms of Reference under violation - reg.**

**[Proposal NO: IA/MH/IND3/454567/2023, File No.: IA-J-11011/430/2023-IA-II(I)]**

1. The proposal is for the ToR for preparation of EIA/EMP for the Proposed expansion of synthetic organic chemicals (from 700 MT/month to 6800 MT/month) manufacturing plant within Existing Unit of. (Unit-II) at Gut No. 398/1&2, 459/1, At & Po: Dinkarpada, Kudus, Ta: Wada, Dist: Palghar, Maharashtra
2. The project/activity is covered under Category 'A' of Item 5(f), Synthetic organic chemicals industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) as the project is located outside the Notified Industrial Area.
3. The PP applied for the ToR vide proposal No. IA/MH/IND3/454567/2023 dated 5.12.2023 . The proposal is now placed in this 71<sup>st</sup> EAC Meeting held on 29<sup>th</sup> December, 2023 wherein the PP made an accredited Consultant, /s. Aqua-Air Environmental Engineers Pvt. Ltd. (NABET Accreditation No.: NABET/EIA/2023/SA 0196 Valid Up to April 08, 2024] a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:
4. The PP reported the product details as follows:

| Sr. No. | Products                    | CAS Nos.     | Quantity (MT/Month) |             |                       |
|---------|-----------------------------|--------------|---------------------|-------------|-----------------------|
|         |                             |              | Existing            | Proposed    | Total after expansion |
| 1       | Unsaturated Polyester Resin | 26123-45-5   | 700                 | 4600        | 5300                  |
| 2       | Saturated Polyester Resin   | 113669-95-7  | 0                   | 1500        | 1500                  |
|         |                             | <b>TOTAL</b> | <b>700</b>          | <b>6100</b> | <b>6800</b>           |

5. The PP reported that EC is not obtained for the existing project as the existing project is under operation since 2002 before the provisions of EIA Notification 2006. **PP also informed that proposal involvs violation of EIA Notification 2006 as the said Unit has expanded the capacity from 700 MTPM to 2000 MTPM in the year 2018 without obtaining prior environmental clearance.**

6. The PP reported that the Existing land area is 9960 m<sup>2</sup>. Additional 2100 m<sup>2</sup> land will be used for proposed expansion. Hence, Total land area after proposed expansion is 12060 m<sup>2</sup>.
7. The PP reported that the proposal does not involve Approval/Clearance under Forest (Conservation) Act,1980, Wildlife (Protection) Act,1972 and CRZ notification, 2011 as amended. Tansa River is flowing at a distance of 2.5 km in South West directions.
8. The PP reported that the Total water requirement is 21 KLD (Existing: 5 KLD + Additional: 16 KLD) of which fresh water requirement of 1.3 KLD will be met by tanker water supply.
9. Effluent of 21.1 KLD (Industrial: 17.1 KLD + Domestic: 4 KLD) quantity will be treated in Primary, Secondary & tertiary Treatment and MEE and then sent to recycle/reuse within premises. The plant will be based on Zero Liquid discharge system Total Wastewater Generation 21.1 KLD (Industrial: 17.1 KLD + Domestic: 4 KLD). The industrial effluent 17.1 KLD shall be treated in Primary, Secondary & tertiary Treatment units followed by MEE. The condensate from MEE 15.7 KLD shall be recycled for industrial purpose - 11 KLD and for gardening - 4.7 KLD. Domestic sewage will be treated in proposed STP & 4 KLD treated waste water shall be reused for gardening - 0.3 KLD and flushing - 3.7 KLD. Unit will adopt Zero Liquid discharge facility.
10. The PP reported that the Power requirement after expansion will be 500 KVA including existing 200 KVA and will be met from Maharashtra State Electricity Board. Unit will install DG sets of 125 KVA x 2 & 250 KVA x 1. DG sets shall be used as standby during power failure. Stack (Height: 11 m) will be provided as per CPCB norms to the proposed DG sets.
11. PP proposed that Industry will develop Greenbelt in an area of 18.64% i.e., 2248 m<sup>2</sup> out of total area of the project 12060 m<sup>2</sup>. Total 12060 m<sup>2</sup> (Existing: 9960 m<sup>2</sup> + Additional: 2100 m<sup>2</sup>) land area is available at site; out of this area about 2248 m<sup>2</sup> (18.64%) (Existing: 105 m<sup>2</sup> + Additional: 2143 m<sup>2</sup>) area will be covered as greenbelt. Industry also proposed to develop additional greenbelt outside the premises in area of 4052 m<sup>2</sup> (33.6% of total area of project). However, the Committee observed that Industry has sufficient land for greenbelt. Therefore, PP shall come out with layout map for 33% greenbelt within the plant premises in the EIA report.
12. The estimated project cost is Rs 22.41 Crores (Existing: 0.27 Crores + Proposed: 22.14 Crores).and the total Employment will be 175 persons as direct & 0 persons indirect.

13. **Deliberations by the EAC:**

The Committee deliberated on the certified compliance report issued by SPCB, Greenbelt/plantation, Monitoring reports and found it to be satisfactory. The EAC noted that no direction has been issued by MPCB.

14. The Committee, after detailed deliberations, **recommended** for issuing **Standard ToR [Annexure-II] with Public Hearing** as the project site is located outside the notified industrial area and the following **additional ToR**, as per the provisions of the EIA Notification, 2006 (as amended) and SOP dated 07.07.2021:
- (i). The PP shall follow the Standard Operating Procedure (SoP) issued by the Ministry on 07.07.2021 for handling of violation cases under EIA Notification, 2006.
  - (ii). PP shall complete the Impact Assessment studies & submit Environmental Impact Assessment (EIA) report & Environmental Management Plan (EMP) (Damage Assessment, Remedial Plan and Community Augmentation Plan) in a time bound manner.
  - (iii). Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR).
  - (iv). Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.
  - (v). The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter (13) in the EIA report by the accredited consultants.
  - (vi). Budget of remediation plan and natural and community resource augmentation plan corresponding to the ecological damage shall be completed within three years and to be prepared accordingly.
  - (vii). The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of EC. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority.
  - (viii). Calculation of the penalty amount as per provision of SOP dated 07.07.2021 (i.e. 0.5% of the total project cost incurred up to the date of filing of application along with EIA/EMP report PLUS 0.125% of the total turnover during the period of violation) with supporting documents. In addition to this, actual production vis-a-vis CTO capacity financial year wise in a tabular format with supporting documents.

- (ix). The State Government/SPCB to take action against the project proponent under section 15 read with section 19 of the Environment (Protection) Act, 1986, and further no consent to operate to be issued till the project is granted EC. SPCB shall restrict the activity/production to the extent to which prior EC was not required.
- (x). PP shall come out with layout map for 33% greenbelt within the plant premises in the EIA report.
- (xi). Certified compliance report from the IRO, MOEFCC/SPCB for the existing EC/CTO shall be submitted as per OM dated 8.6.2022.
- (xii). Information regarding PH to be incorporated in the EIA report : (a) Public Hearing Report containing details such as (i) Details of advertisements (ii) Copy of forwarding letter of SPCB to MoEF&CC (iii) Legible copy of public hearing proceedings duly signed by the presiding officer. (iv) Attendance sheets (v) Action plan to address the issues raised during public hearing along with budget allocation and time line. (vi) Copy of hand written grievances/submissions if any. (b) Ambient air quality was monitored during October- December 2019.

### **Any other Items**

**Expansion of Active Pharmaceutical Ingredients (APIs) Bulk Drug manufacturing unit with production capacity from 25.5 TPM to 134.082 TPM within the Existing Plant located at Sy. No. 90/2, 90/3, 90/4, 99/1, 99/2, 99/3, 99/4, 99/5, 100/1, 100/2a, 100/2b, 100/3, Village Sathammai, Taluka Madurantakam, District Chengalpattu (Formerly Kancheepuram), Tamil Nadu by M/s Sun Pharmaceutical Industries Ltd. -Court Case regarding**

The proposal was earlier considered in the 70<sup>th</sup> EAC meeting held on 4th December, 2023 in which Committee suggested that due to paucity of time, this matter may be listed in the upcoming meeting for discussion. In the meantime, documents related to the proposal may be circulated to the members. Now the proposal was considered in 71<sup>st</sup> EAC meeting held on 29<sup>th</sup> December, 2023 in which Committee noted that Ministry, vide file no. IA-J-11011/544/2021-IA-II(I) dated 31st March 2022 has granted environmental clearance for expansion of Active Pharmaceutical Ingredients (APIs) manufacturing unit with production capacity from 25.5 TPM to 134.082 TPM within the Existing Plant located at Sy. No. 90/2, 90/3, 90/4, 99/1, 99/2, 99/3, 99/4, 99/5, 100/1, 100/2a, 100/2b, 100/3, Village Sathammai, Taluka Madurantakam, District Chengalpattu (Formerly Kancheepuram), Tamil Nadu by M/s Sun Pharmaceutical Industries Ltd subject to the following conditions:

- i. This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble NGT and any other Court of Law, as may be applicable to this project.

- ii. This Environmental Clearance is subject to obtaining the NBWL clearance from the Standing Committee on Wildlife as the Unit is located at 3.72 km (West) from the Vedanthangal Bird Sanctuary.

Committee also noted that Hon'ble NGT while hearing the matter in Appeal No 33 of 2022 passed the order dated 11<sup>th</sup> October, 2023 with the following observations:

*"1. Despite our Order dated 10.04.2023 seeking the report from the MoEF&CC for the action to be taken by them, the MoEF&CC has filed the report dated 09.05.2023 stating the general statements only and nothing specific to the questions asked.*

*4. Once this Tribunal had held that it was not valid, the MoEF&CC should have revisited the impugned EC and taken appropriate action against the Project Proponent.*

*5. Therefore, we call for the report from the MoEF&CC as to what action they have taken to keep the expansion EC granted (which is impugned in this appeal) in abeyance, whether the expansion EC can be sustained and whether the MoEF&CC would revisit the same to either withdraw or keep it in abeyance."*

Committee was of the view that earlier EC dated 31st March 2022 contained condition that EC will be subject to orders/ judgment of Hon'ble NGT and any other Court of Law, as may be applicable to this project.

In view of the above, the Expert Appraisal Committee (Industry-III) recommended to keep EC dated 31st March 2022 in abeyance until the final judgement of the Hon'ble NGT.

**GENERAL EC CONDITIONS**

- No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- The PP shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.
- The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
- The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- A copy of the clearance letter shall be sent by the PP to concerned Panchayat, ZillaParishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- The PP shall also upload/submit six monthly reports on Parivesh Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the

Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Integrated Regional Office of MoEF&CC by e-mail.

- The PP shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at <https://parivesh.nic.in/>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
- The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
- This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

\*\*\*

**STANDARD TERMS OF REFERENCE****A. GENERIC TERMS OF REFERENCE****1) Executive Summary****2) Introduction**

- i. Details of the EIA Consultant including NABET accreditation
- ii. Information about the PP
- iii. Importance and benefits of the project

**3) Project Description**

- i. Cost of project and time of completion.
- ii. Products with capacities for the proposed project.
- iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
- iv. Details of existing products and production, if any, along with present product/production details in tabular format, to verify the compliance of the EIA Notifications.
- v. Details of existing products and production, if any, along with present product/production details in tabular format, to verify the compliance of the EIA Notifications.
- vi. List of raw materials required and their source along with mode of transportation.
- vii. Other chemicals and materials required with quantities and storage capacities
- viii. Details of Emission, effluents, hazardous waste generation and their management.
- ix. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
- x. Details of boiler/gensets (including stacks/exhausts) and fuels to be use
- xi. Details of boiler/gensets (including stacks/exhausts) and fuels to be used
- xii. Process description along with major equipment's and machineries, process flow sheet (quantitative) from raw materials to products to be provided
- xiii. Hazard identification and details of proposed safety systems.
- xiv. **Expansion/modernization proposals:**
  - a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Integrated Regional Office of the Ministry of Environment, Forest and Climate Change as per circular dated 30<sup>th</sup> May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, copy of the latest CTO and status of compliance of Consent to Operate for the ongoing/existing operation of the project from

SPCB shall be attached with the EIA-EMP report.

- b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

#### 4) Site Details

- i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
- ii. A topo-sheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
- iii. Details w.r.t. option analysis for selection of site
- iv. Co-ordinates (lat-long) of all four corners of the site.
- v. Google map-Earth download of the project site.
- vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
- viii. Land-use break-up of total land of the project site (identified and acquired), government/private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
- ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
- x. Geological features and Geo-hydrological status of the study area shall be included.
- xi. Details of Drainage of the project up to 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)
- xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land. Documents related to conversion of land for Industrial purpose.
- xiii. R&R details in respect of land in line with state Government policy

#### 5) Forest, wildlife and CRZ related issues (if applicable):

- i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable)
- ii. Land-use map based on High resolution satellite imagery of the proposed site delineating the forestland (*in case of projects involving forest land more than 40 ha*)
- iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
- iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the PP shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon
- v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area
- vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife
- vii. Recommendations and NOC from the concerned State/UT Coastal Zone Management Authority on CRZ angle

#### 6) Environmental Status

- i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
  - AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Study should indicate minimum, maximum value of different parameters for the period (3 months) collected. Collected data should be supported by the reference data of either CPCB or SPCB. AAQ data & GLC of pollutants from stack emissions should suggest technology/ measures- Best Practiced Technology (BPT) indicating best achieved results.
- ii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
- iii. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
- iv. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.
- v. Ground water monitoring at minimum at 8 locations shall be included.
- vi. Noise levels monitoring at 8 locations within the study area.
- vii. Soil Characteristic as per CPCB guidelines.

- viii. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- ix. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
- x. Socio-economic status of the study area.

## 7) Environment Impact and Environment Management Plan

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- ii. Water Quality Modelling – in case of discharge in water body
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules 1986.
- v. Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control
- vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
- x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also

to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.

- xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xii. Action plan for post-project environmental monitoring shall be submitted.
- xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

## 8) Occupational health

- i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre-placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.
- iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved.
- iv. Annual report of health status of workers with special reference to Occupational Health and Safety.

## 9) Corporate Environment Policy

- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
- ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
- iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
- iv. Does the company have system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report
- v. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including

truck drivers during operation phase.

**10) Corporate Environmental Responsibility (CER)**

- i. Adequate funds, as per the Ministry's OM/Guidelines, shall be earmarked towards the Corporate Environmental Responsibility based on Public Hearing issues/socio-economic issues and item-wise details along with time bound action plan shall be included (CER activities shall be related to environment). Socio-economic development activities need to be elaborated upon. For the projects where public hearing is not conducted, CER plan shall be provided based on socio-economic study of the area.

**11) Additional studies/Measures to be considered**

- (i) Provide latest and ecofriendly technology for product manufacturing.
- (ii) Emphasize on Green chemistry/Clean Manufacturing
- (iii) Provide CAS No. of products along with product list.
- (iv) Provide details of amount of carbon sequestered in their unit through greenbelt/other modes, in case of expansion project.
- (v) Life structure and sustainability for carbon and water foot print.
- (vi) Detailed pollution Load estimation.
- (vii) Transportation of Hazardous substance, effluents etc shall be carried out through authorized and GPS enable vehicles/Trucks only.
- (viii) Category of Hazardous Wastes shall be mentioned in the EIA/EMP report and in presentation.
- (ix) Details of greenhouse gases and emissions shall be provided.
- (x) Greenbelt shall be developed in the first year of the project and wind breaks shall be erected.
- (xi) Study area map shall be overlapped with all the associated features.
- (xii) Emphasize on green fuels.
- (xiii) The project from NCR shall not use Coal as fuel. Further, PP shall avoid use of Coal in the CPAs and elsewhere also if alternatives are available.
- (xiv) Provide the Cost-Benefit analysis with respect to the environment due to the project.

**12)** Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

**12)** A tabular chart with index for point wise compliance of above TORs and its details needs to be submitted in the EIA/EMP Report.

**B. SPECIFIC TERMS OF REFERENCE FOR EIA STUDIES FOR 5(f) CATEGORY SYNTHETIC ORGANIC CHEMICALS INDUSTRY (DYES & DYE INTERMEDIATES; BULK DRUGS AND INTERMEDIATES EXCLUDING DRUG FORMULATIONS; SYNTHETIC RUBBERS; BASIC ORGANIC CHEMICALS, OTHER SYNTHETIC ORGANIC CHEMICALS AND CHEMICAL INTERMEDIATES)**

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, other process-specific pollutants\* like NH<sub>3</sub>\*,chlorine\*,HCl\*,HBr\*,H<sub>2</sub>S\*,HF\*,*etc.*,(\*-as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
6. Action plan for odour control to be submitted.
7. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
8. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
9. Action plan for utilization of MEE/dryers salts.
10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
12. Details of incinerator if to be installed.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

\*\*\*  
—

**List of the Expert Appraisal Committee (Industry-3) members participated during Video Conferencing (VC) meeting**

| S. No         | Name of Member                     | Designation      |
|---------------|------------------------------------|------------------|
| 1.            | Prof. (Dr.) A.B. Pandit            | Chairman         |
| 2.            | Dr. Suresh Panwar                  | Member           |
| 3.            | Prof. (Dr.) Vijayanand S. Moholkar | Member           |
| 4.            | Dr. (ER.) Dibakar Swain            | Member           |
| 5.            | Shri Dinabandhu Gouda              | Member           |
| 6.            | Dr. Kishore Malviya                | Member           |
| 7.            | Dr. P. Jagannadha Rao              | Member           |
| 8.            | Prof. (Dr.) Suneet Dwivedi         | Member           |
| 9.            | Shri Dinesh Runiwal,               | Member           |
| 10.           | A N Singh                          | Member Secretary |
| <b>MOEFCC</b> |                                    |                  |
| 1.            | Dr. Kanchan Puri                   | Scientist-B      |
| 2.            | Dr. S. Pradeep kumar               | Scientist-B      |

\*\*\*

**MOM approved by**



**(Prof. Aniruddha B. Pandit)  
Chairman**

\*\*\*

Amesure - R1-4

File No.:IA-J-11011/544/2021-IA-II(I) [Comp. No.:172401]

**Government of India**  
**Ministry of Environment, Forest and Climate Change**  
**(Impact Assessment -II)**  
**(Industry-III)**

9<sup>th</sup> Institutional Area,  
 Lodhi, New Delhi-110003  
 E-mail: aditya.narayan@nic.in  
 Tel: 011-24642176

Dated: 1<sup>st</sup> February, 2024**To**

The General Manager,  
 M/s Sun Pharmaceutical Industries Limited  
 Sathammal Village, Karunkhuzhi Post,  
 Madhuranthagam Taluk, Kanchipuram,  
 Tamil Nadu-603303.  
**E-mail:** joy.ma@sunpharma.com

**SUB:** Expansion of Active Pharmaceutical Ingredients (APIs) manufacturing unit with production capacity from 25.5 TPM to 134.082 TPM within the Existing Plant located at Sy. No. 90/2, 90/3, 90/4, 99/1, 99/2, 99/3, 99/4, 99/5, 100/1, 100/2a, 100/2b, 100/3, Village Sathammai, Taluka Madurantakam, District Chengalpattu (Formerly Kancheepuram), Tamil Nadu by **M/s Sun Pharmaceutical Industries Ltd. – Abeyance regarding.**

**REF:** (i) Proposal No. IA/TN/IND3/248368/2021 dated 08 Feb 2022.

(ii) Appeal No. 33 of 2022 in the matter titled Meenava Thanthai K. R. Selvaraj Kumar Meenava Nala Sangam Vs. Union of India before the Hon'ble National Green Tribunal, (SZ).

Whereas, Ministry of Environment, Forest and Climate Change (MoEFCC) received the proposal seeking Environment Clearance (EC) from M/s Sun Pharmaceutical Industries Ltd [herein after referred to as Project Proponent] vide proposal number IA/TN/IND3/248368/2021 dated 08<sup>th</sup> Feb 2022 for the "Expansion of Active Pharmaceutical Ingredients (APIs) manufacturing unit with production capacity from 25.5 TPM to 134.082 TPM within the Existing Plant located at Sy. No. 90/2, 90/3, 90/4, 99/1, 99/2, 99/3, 99/4, 99/5, 100/1, 100/2a, 100/2b, 100/3, Village Sathammai, Taluka Madurantakam, District Chengalpattu (Formerly Kancheepuram), Tamil Nadu".

2. Whereas, Environmental Clearance was granted by the Ministry, vide F. No. IA-J-11011/544/2021-IA-II(I) dated 31<sup>st</sup> March 2022 under the provisions of the EIA Notification, 2006.

3. Whereas, Environmental Clearance granted by the Ministry, vide F. No. IA-J-11011/544/2021-IA-II(I) dated 31<sup>st</sup> March 2022 was challenged in the Appeal No. 33 of

File No.:IA-J-11011/544/2021-IA-II(I) [Comp. No.:172401]

Page 1 of 2

2022 in the matter titled Meenava Thanthai K. R. Selvaraj Kumar Meenava Naia Sangam Vs. Union of India pending before the Hon'ble National Green Tribunal, (SZ) Chennai.

4. Whereas, W.P No. 25807/2023 in the matter of Sun Pharmaceutical Industries Ltd. v. Union of India is pending before the Hon'ble High Court of Madras.

5. Whereas, Hon'ble National Green Tribunal (NGT) in the Appeal No.33 of 2022 (SZ) vide order dated 11.10.2023, has directed to keep the expansion EC granted in abeyance.

6. Whereas matter was referred to the EAC (Industry -3) in its meetings held on 4.12.2023 and 29.12.2023 and the Committee recommended to keep EC dated 31st March 2022 in abeyance until the final judgement of the Hon'ble NGT.

7. Now, therefore, under Section 5 of the Environment (Protection) Act, 1986, Ministry has decided to keep the EC dated 31<sup>st</sup> March 2022 granted to M/s Sun Pharmaceutical Industries Ltd in abeyance until the final judgement of the NGT / High Court/ Supreme Court.

8. This is issued with the approval of the Competent Authority.



(A N Singh)  
Scientist-'E'

E-mail: aditya.narayan@nic.in

Tel: 011-24642176

BEFORE THE NATIONAL GREEN TRIBUNAL

SOUTHERN ZONE, CHENNAI

Appeal No. 33 of 2022

Meenva Thanthi K.R. Selvaraj Kumar, Meenvar Nala Sangam

Applicant(s)

Vs

Union of India and Ors

. ...Respondent(S)

ME. Sarashwathy

Advocate for MoEF&CC